

ccj

COMMERCIAL CAR JOURNAL

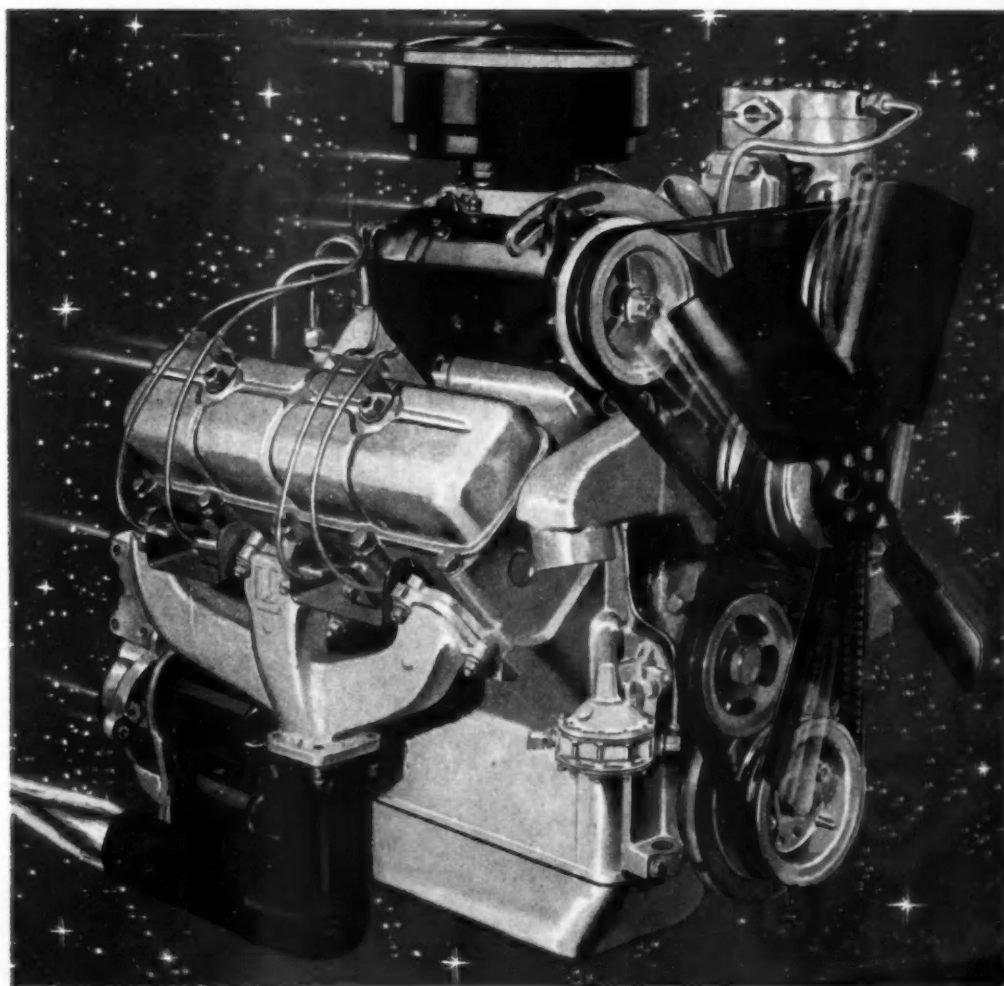
THE MAGAZINE FOR TRUCK AND BUS FLEET OPERATORS

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OF MICHIGAN

MAY 11 1955

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SUBSIDIARY OF **BOHN** ALUMINUM AND BRASS CORPORATION

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**Now - out of Chrysler Corporation... come
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Announcing new Dodge "Job- Rated" Trucks!



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NEW! Super Power-Dome V-8 engines—169 to 202 hp.—the world's most powerful low-tonnage V-8's—and the most dependable sizes!

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**ORANGE
LEANERS**

Alert truck de
second-quarter
bodies by Gr
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dealer who has
to wait for your

COMMERCIAL CAR



"Looking Ahead..."

**the only way to make sure of
Lower Delivery Costs!**

As long as you waste money on excessive rust and corrosion, constant denting, overweight bodies, rapid depreciation and short truck-life, your distribution costs will be too high.

Plus *the time it will take you* to get Bodies that weigh *less*, with *thick* aluminum panels that dent *less*, corrode *less*, depreciate *less*, last longer, and pay for themselves thru Savings.

You can't get delivery salvation pronto! You have to "Look Ahead" — order it now for next summer and fall. The thriftiest truck operators and the most

You may be tempted to try imitations, but "Looking Ahead" will get you the real thing if you order Olsons now for delivery in the late summer or early fall.

There's a reason why Olson Bodies are sold out ahead when other route truck bodies are in plentiful supply: Excessive corrosion, denting or deadweight is no bargain at any price or at any time.



It will pay you to get good-looking quality Bodies that cut delivery costs — pay you to order them *now* and wait for them. There's no economy in trucks that cost too much to operate and maintain, so "Look



Alert truck dealers in America have bought up the second-quarter production of Olson Aluminum Alloy Bodies by Grumman and some have placed orders running into the fall. So, unless you can find an alert dealer who has stock-ordered our Bodies, you'll have to wait for your Delivery Economies.



Ahead" and order real bargains in route trucks—with Bodies by Grumman that pay for themselves and are in demand for that reason!

See your truck dealer today or write us for information.

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THIS MONTH'S FEATURES

The Battle of the Tubeless Tire Rim 70

The debate is on. Here is a detailed look at the question using Firestone's one-piece drop center and Goodyear's three-piece flat base rims as examples.

Streamlined Parts Inventory Saves Time ... 72

It also cuts costs, eliminates paper work, says C. H. Rose, fleet maintenance superintendent, East Texas Motor Freight Lines. He lists 10 steps for better parts control.

Shop-Designed Tools Trim Bus PM Costs 74

Here are nine labor-savers and work-speeders that helped Fresno City Lines cut shop costs almost $\frac{3}{4}$ c per mile in a two-year employee-management drive to slash expenses.

Truck Drivers Go to College 76

Now in its sixth year, North Carolina State College's truck driver training course has turned out 2000 drivers that fleet supervisors like to hire. Here's why.

Sleeve Corrosion—Causes and Cures 70

"Termite," vibration and electrolytic types of cavitation in diesel cylinder sleeves can be eliminated, reduced or controlled says this analysis of the problem.

Oil Analysis Tells Maintenance Story 82

In the fleet's own shop without using complicated laboratory equipment, Shell's "Oilprints" are used to check engine oil for alkalinity, dispersion and contamination.

You and the National Safety Council 83

Its Motor Transportation Division offers real value in accident prevention activity for both large and small fleets says this sixth article in CCJ's special series on associations serving truck operators.

Utility Operators Talk Shop..... 87

Oil and lube for economical stop and go operation held top interest for utility fleet operators at last month's AGA-EEB meeting. Here is what they heard.

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COMMERCIAL CAR JOURNAL

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The Hoosier Touch in Public Relations 94
You'll be able to pick up many ideas from this "how-to-do-it" report on Indiana Motor Truck Assn.'s program especially designed to reach the man in the street.

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COMMERCIAL CAR JOURNAL, May, 1955

To a fleet maintenance chief
who has to "keep 'em rolling"!




Here's Hygrade's pump with the "never-say-die" diaphragm

Nobody has to tell *you* that it's the diaphragm that makes or breaks a fuel pump. You've seen too many perfectly good pumps fold up after only a few thousand miles because the diaphragm "went".

Here's HYGRADE's solution — the one-piece, non-corrosive *Monoflex* diaphragm that *lasts for the life of the pump*. And it's not just the rugged material in it that makes *Monoflex* the longest-lived diaphragm on the market—it's also the way it's fitted. The diaphragm is so tightly sandwiched between the smooth casting surfaces that not even the *smell* of gas can escape.

Its great diaphragm isn't the only reason for this HYGRADE fuel pump's popularity with fleet men. For instance, the rocker arm is heat-treated for extra strength and minimized wear. And its valve springs are phosphor bronze, oil-treated, remain perfectly elastic.

Write our engineering department for complete details. That's HYGRADE PRODUCTS DIVISION, Standard Motor Products, Inc., 37-18 Northern Boulevard, Long Island City 1, New York

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handle MORE lube jobs— $\frac{1}{3}$ faster
even with tough, long-lasting greases...
BECAUSE ONLY ALEMITE
offers you a pump designed
specifically for these problems

1. Tough Lubricants. Easy to pump—because Super-H has tremendous reserve power (70-to-1 ratio)—gives INSTANT action at the control valve!

2. Cold Weather. In and out traffic with big doors open means cold, slow-moving grease. But Super-H means no waiting—ALWAYS fast delivery!

3. Long Pipe Lines. Long lines from basement or store room usually restrict delivery. Super-H has high speed, short stroke to push lube through longest lines!

4. Pressure Drop. A 15-second delay at the fitting waiting for pressure to build up is costly—it adds up when other lube jobs are waiting. Super-H gives you 6,000 to 7,000 lbs. right now—NO TIME LAG!

and...

"Removall" Follower Plate
Saves up to 25% of Lubricant!

Flexible rubber plate fits semi-open drum—removes all the grease, right down to the bottom! No mess, no channeling, no air pockets.



Exclusive "PRESSURTROL" provides perfect pump control... regulates tremendous reserve power... prevents pressure drop... gives full pressure at your finger-tips—always!

Exclusive ALEMITE 27-MONTH GUARANTEE Sealed Power-Head... precision heart of the pump... is unconditionally guaranteed for 27 months. No other manufacturer can match this Alemite guarantee!

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COMMERCIAL CAR JOURNAL, May, 1955

The OVERLOAD

E D I T O R I A L C O M M E N T

Buying A Highway—Part 2

LAST MONTH we suggested rather forcefully that it was time to think positively in terms of greatly expanded highway facilities. We pointed out that, despite increased cost, there is a genuine need to keep our highways in tune with predictable increases in both the number and usage of vehicles. Recognizing this need is Part 1 of the problem.

Part 2 hinges on a simple question—how do we pay? If we knew the answer, we could save Washington bigwigs a lot of time and money. For the past 30 days both Senate and House road committees have listened to a constant barrage of widely divergent opinion. At press time they had reached the point where dopesters were predicting that the whole program might collapse in the confusion of political red tape. The Democrats, hating to see the Republican administration carry the ball too far, were readying a program of their own.

From the great pile of testimonial evidence, it is well to keep in mind the three bills already dropped in the legislative hopper. There are:

The administration bill (S1160) backs virtually all of the President's proposal and provides \$3.1 billion annually for Federal-Aid highway funds. This is about 30 per cent of the projected total and would be financed largely by a new Federal bond issue, exempt from the Federal debt limit.

The Gore bill (S1048)—which is something of a compromise—would raise \$1.6 billion annually for Federal-Aid, would stay within the debt limit.

The Case bill (S1573)—and here comes the joker—provides a Federal license tax on vehicles over 20,000 lb ranging from \$300 to \$1,200 each.

Read that last one over to see why we suggested last month that fleet operators would do well to spend at least as much time buying their highways as they do buying their vehicles. If they don't, some one else will do it for them . . . and on much rougher terms.

In trying to evaluate the whole problem, here is a six-point program that we believe truck interests would do well to follow. We could back each one up with quotes from expert opinion, but space does not permit. In short we believe these truths to be self-evident:

1. We are all going to have to dig deeper for increased highway funds, even though it hurts.

2. The cost will probably mean increased registration and fuel taxes at both Federal and state levels. But it's far better to work within these first and second structures than to get into third (mileage) and fourth (tolls) structure taxes.

3. The increase in user levies should be *across the board* for all types of highway users. There is no justification anywhere for a "soak the truck" movement.

4. The project does not necessarily need to be on a pay-as-you-go basis, provided funds borrowed can be liquidated on a sound financial basis. There is ample evidence that our expanding future economy can share part of the immediate needs.

5. Toll roads are *not* the answer, except as deluxe optional routes in highly congested areas. They simply will not work as part of the interstate system.

6. Diversion of highway funds to other purposes should be plugged once and for all, at both state and Federal level.

Bart Rawson
Editor

How to make



TUNE IN...TEXACO
STAR THEATER
starring
DONALD O'CONNOR
or JIMMY DURANTE
on television...
Saturday nights, NBC.



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At Your Service

TIMELY NOTES ON MAINTENANCE AND OPERATION

by MURRAY SIMKINS Managing Editor

Are You Using Bonded Brakes?

FROM THE results of a nationwide study of non-factory bonding failures of pre-cemented brake lining segments, experts at Raybestos Division of Raybestos-Manhattan have compiled a method to get solid bonds every time.

The study showed that the most common cause of unsatisfactory bonding is dirty brake shoes. A close second is improper curing temperature. Next is inadequate or uneven pressure. Bonding cement, blamed by many mechanics for failures actually due to these causes, was found to be virtually blameless.

Even in failures definitely attributable to unsatisfactory bonding cement, further investigation showed that often the segments had been stored near a heating oven or steam-line. The heat had caused deterioration.

Occasional failures were traceable to the use of very old stock showing that the stock rotation system was not being used or that the dating on segment cartons was being ignored.

V-Belt Maintenance Tips

DAYTON Rubber Co. has prepared a preventive maintenance manual for V-belt drives. Here are a few of the manual's suggestions:

Look and listen. When a V-belt is not functioning properly the fault usually can be heard or seen.

For example, ticking, slapping sounds mean the belt is hitting the belt guard or some other obstruction. Unless corrected, the rubbing will wear out the belt cover rapidly. Bent or damaged belt guards may be responsible.

When a V-belt squeals or howls, slippage is indicated. The belt is probably too loose or overloaded.

To determine if belt tension is right, simply slap it. If it feels "dead," it probably is loose. If it has no "give," it is too tight. But it is just right if it feels alive and springy.

Other warning signs that can be easily spotted include sheave misalignment, worn or mismatched belts, oil or grease on belts, damaged or wobbly sheaves.

Reconditioning Clutch Parts

AN IMPROVED method of reconditioning

Spicer Model 916 converter roller clutch outer races is announced by Trans-Main Corp., Kent, Ohio. Outer races are now reconditioned by installing a special alloy bearing steel roller race, using a combination temperature-pressure process. After the new sleeve is installed, the bore is finish-ground to original factory dimensions. According to Trans-Main, the grinding method now used, identical to that employed in the manufacture of the original part, holds bore out-of-round and taper to less than 5/10,000 in. Precise concentricity of race bore with other gear train components is said to be assured by using pitch diameter of outer race gear teeth as locating points on the grinding fixture.

LP-Gas Service Department

A NEW SERVICE and installation department has just been opened in Los Angeles by American Liquid Gas Corp. It provides complete facilities for installation of new LP-Gas carburetion systems as well as extensive service to present users of liquefied petroleum.

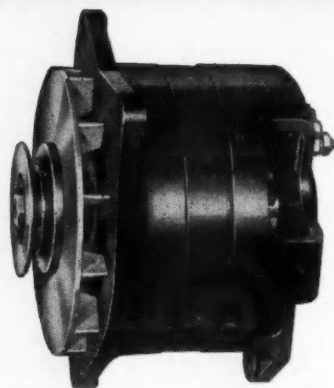
It's Your Shop—Save It

A FIRE IN your shop means a loss to both employer and employee because the shop can't operate until damaged or lost equipment is repaired or replaced. The best way to prevent fires is to be careful. Being careful while welding means remembering and following these five important rules:

1. Don't weld or cut where sparks or an open flame will be a hazard.

(TURN TO NEXT PAGE, PLEASE)

Now EVERY Fleet in America can afford *Leece-Neville* Alternators



PACKAGE DELIVERY, NEWSPAPER
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SENSATIONAL LOW PRICE ON NEW L-N ALTERNATOR SYSTEM

The new Leece-Neville Alternator brings to fleets of passenger cars, light and medium trucks all the famous advantages that larger L-N Alternators have proved by performance for over nine years: charging current with engine idling, high output, low maintenance cost. Plus new, simplified bracketing. Yet the new L-N Alternator System actually *costs less* than "extra" output d. c. generators.

L-N ALTERNATORS FOR EVERY APPLICATION

There's a right L-N Alternator for every fleet unit. Capacities range from 60 amps for 6-volt systems to 180 amps for 12 volt. L-N Alternators will keep your fleet on the job and out of the repair shop.

Why not get the whole story? Just write The Leece-Neville Company, Cleveland 14, Ohio. *Distributors in principal cities . . . service stations everywhere.*

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Leece-Neville

ALTERNATOR SYSTEMS • GENERATORS
CRANKING MOTORS • REGULATORS
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At Your Service

Continued from Page 9

2. If you can move the work, take it where a fire can't start.

3. If you can't move the work, move everything that will burn easily.

4. When you can't move the work or the flammable material, take precautions to stop sparks.

5. Keep fire extinguishers, water or sand handy—from Linde Tips, Linde Air Products Co.

Fruehauf Adds PM Field Crew

FRUEHAUF Trailer Co. is adding a preventive maintenance field crew whose duties will be to keep an eye on Fruehauf-equipped or mixed fleets in definite areas, for the purpose of educating operators to the advantages of preventive maintenance as a means of reducing operating expense.

Plymouth—Rear Spring Noise

A NOISE at the front eye of the rear spring may be caused by the spring silent block or the eye rubbing on the spring bracket. This can be remedied by installing a flat washer between the silent block and the spring bracket. The washer, which acts as a spacer, will provide proper clearance between the spring and bracket and also prevent the silent block from rotating and possibly causing noise.

Brake Shoe Grinding—Chevrolet

THE GRINDING of brake shoes on bench type grinders to the true diameter of the drum should be discontinued on current passenger car models on which the brake anchor adjustment has been eliminated.

To compensate for this lack of adjustment, the brake shoes have been made .057 in. to .087 in. smaller in diameter in production than the drum. This allows the center portion of the brake shoe to contact the drum first and as wear takes place the heel and toe of the shoes will come to a full contact.

Grinding the shoes to the true diameter of the drum on bench grinders will produce heel or toe contact, resulting in erratic brake action.

When a bench mounted type shoe grinder is used, the shoes should be ground to undersizes indicated above. When a spindle mounted type shoe grinder is used, the shoes should be ground to the actual drum diameter.

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, May, 1955



I ASKED FOR IT—and everyone's glad I GOT it!

YOU see, I didn't know I could ask truck manufacturers for full-depth AIRFOAM seating in all new units of my fleet.

When I found out I could—I *did*—and my savings since are only part of the good news. Sure my savings are real ones—I used to be constantly putting out plenty for seating repairs and replacements. Now, even though many of my AIRFOAM equipped trucks have rolled up 150,000 miles and more—I haven't

spent a DIME on cushions, seats or covers!*

The other part of the good news is the change in my *drivers* since they've been riding on AIRFOAM. They're in better spirits and more alert and alive than ever before—and you know how that helps a fleet's net profits!

*From actual fleet records. For more, by the men who buy and drive, contact Goodyear, Automotive Products Dept., Akron 16, Ohio.

CROSS SECTION OF FULL-DEPTH AIRFOAM SEAT CUSHIONS. Note how AIRFOAM fills body-hollows—supports all over. And—with over half a million air cells to every cubic inch—AIRFOAM “breathes” with every motion, stays cool, fresh, resilient—is easy on seat covers and drivers!



Airfoam MADE ONLY BY **GOOD YEAR**
THE WORLD'S FINEST, MOST MODERN CUSHIONING

Airfoam—T. M. The Goodyear Tire & Rubber Company, Akron, Ohio

COMMERCIAL CAR JOURNAL, May, 1955

more miles per dollar!



Bendix

ELECTRIC FUEL PUMP for trucks, buses and passenger cars

Learn more about this new and improved fuel pump.
Write for descriptive folder and specifications.

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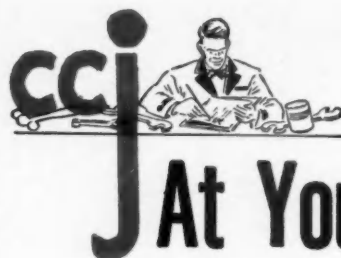
ECLIPSE MACHINE DIVISION
ELMIRA, N. Y.



Bendix* Electric Fuel Pump

Bendix* Folo-Thru Starter Drive

Stromberg* Carburetor



At Your Service

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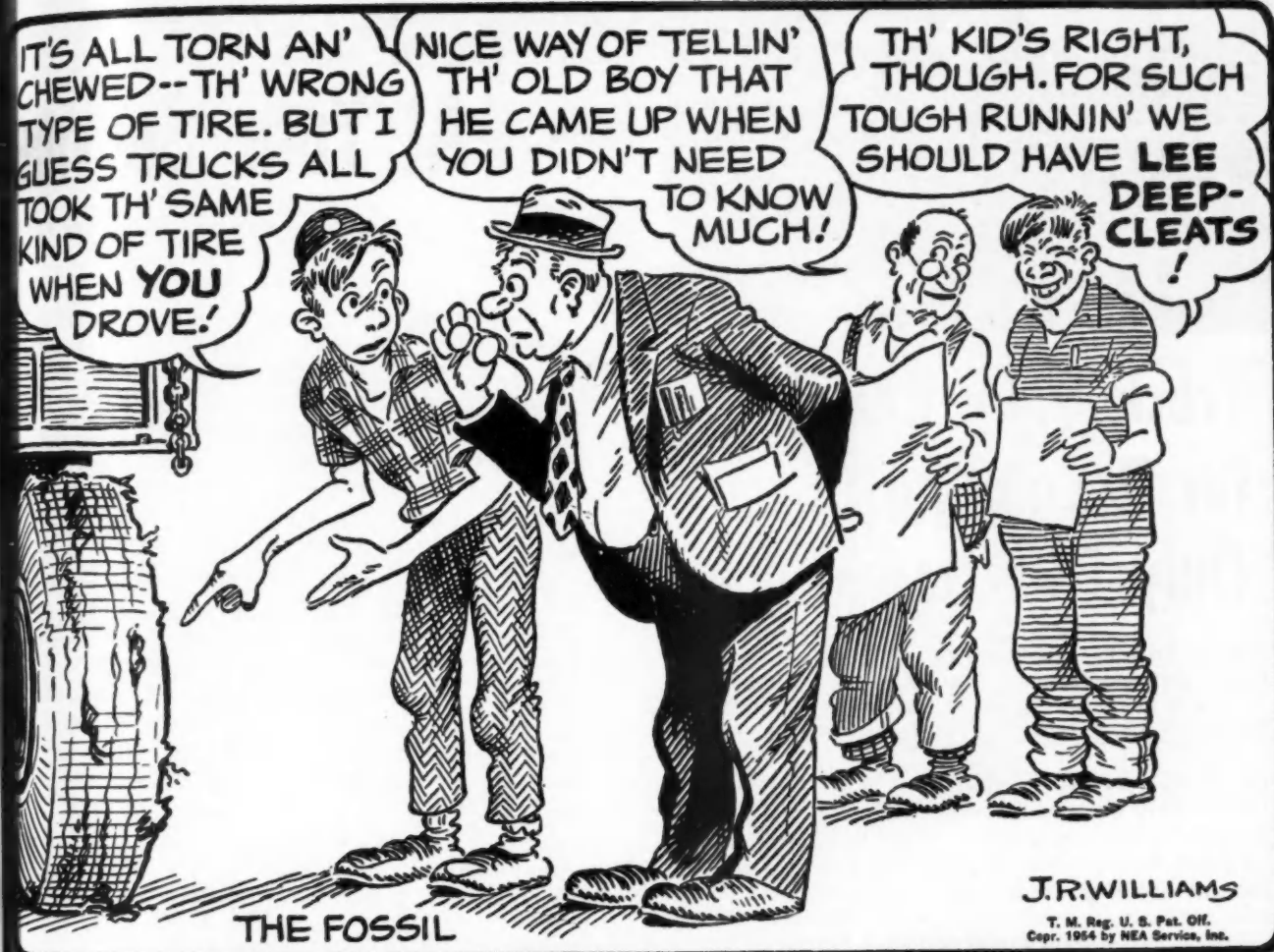
Tests Relate Engine Temperature to Wear Rates

A SERIES of tests has been conducted by Kysor Heating Co. to determine the effectiveness of various methods of engine temperature control and the relationship of temperature to engine wear rates. In one of these tests two heavy-duty vehicles were selected and operated under identical conditions in fuel oil delivery. Automatic radiator shutters were used on both trucks with the shutter thermostats installed in the engine water outlet line and set at 175 deg F. In this field test the line thermostat was removed from the engine during high temperature engine testing with the shutter in operation and replaced when the shutters were blocked open. The line thermostats had an opening temperature of 150 deg F. When the shutters were in operation full non-restricted water flow would circulate through both the radiator and engine at all times.

Engine lubricating oil additions were controlled and records were kept of both road mileage and the amount of furnace oil pumped. The radioactivity of the crankcase oil was determined as the test progressed and this data was used in computing engine wear. When the radioactive piston rings were broken in and wear rates had become stable, one truck was operated with the shutter locked open and the line thermostat controlling, while the other continued to control the radiator coolant jacket temperature at 175 deg. F. with the automatic shutter. When the shutter was locked open, the regular line thermostat was reinstalled so that the lower 150 deg. F. temperature resulted. After several consistent wear rates had been obtained on each engine the shutter was made operative on one engine and the other locked open. In this manner it was possible to obtain wear differences between trucks as well as wear differences between hot and cold jacket water temperature operation on the same vehicle.

Recording thermometers were installed in the trucks so that daily records could be kept of engine water inlet and outlet temperatures. From the temperature recorders it was learned that with the shutter locked open and the regu-

(TURN TO PAGE 14, PLEASE)



BRUTE STRENGTH FOR BRUTE JOBS

New Lee Super DeLuxe Deep-Cleat will handle 'em with ease!

This is the strongest tire Lee has ever produced, designed especially for use in logging, mining, quarrying. The brute-strength carcass is so tough no impact can bruise it through without first bending or breaking the wheel or rim—gives longer life for multiple recaps. The Cushion-Claw tread is about 60% deeper than that of standard highway tires and is compounded for incredible resistance to chipping and tearing. Lee's exclusive Flexlok process makes cord separation from the rubber bond practically impossible, thus providing super resistance to violent flexing. Here's peak off-the-road performance for drivers old and young!

FREE!

8½" x 11" J. R. Williams color-cartoon shop posters . . . promoting correct truck-tire maintenance. You'll get a new one every month . . . order as many copies as you need.



Lee Rubber & Tire Corporation
Conshohocken, Pa.

Please send me each month for six months, _____ copies of the current J. R. Williams tire-maintenance poster. Send also catalog information about Lee Tires for _____
(type of service)

Company _____
My name _____
Street _____
City _____ Zone _____ State _____

2-E

Please attach coupon to your company letterhead

There's a LEE TIRE that's BEST for every trucking need

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COMMERCIAL CAR JOURNAL, May, 1955



Truck Body Ready for Repainting in Only Five Hours!

Here's how one fleet owner saves four days' shop time—gets his 9' trucks, freshly repainted, back on the road faster—by "mechanizing" his paint-stripping operation.

Formerly, he would have each truck body laboriously scraped to remove the many tough coats of hardened paint . . . then sanded down by hand. Even with two men working for as long as five days on a single truck, the bodies still weren't in good enough condition to receive a satisfactory paint job. Dissatisfied with such poor results, the fleet owner decided to consult Oakite.

The Oakite Technical Service Representative suggested a "mechanized" cleaning operation. Using Oakite Stripper M-3 in an Oakite Hot-Spray Unit, he flowed the paint-stripping solution over wide areas with a specially constructed T-pipe applicator. Then the cab and other hard-to-get-at spots were stripped with the unit's regular gun. Finally, the truck surface was neutralized; then phosphatized for perfect paint adhesion. In five hours, the truck was ready for repainting!

For complete details, demonstration—call in your local Oakite Representative. Or send for your FREE copy of Booklet 4401 for some handy tips on automotive maintenance. Write Oakite Products, Inc., 26D Rector Street, New York 6, N. Y.

SPECIALIZED INDUSTRIAL CLEANING
OAKITE
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At Your Service

Continued from Page 12

lar line thermostat in operation, the water inlet temperature was 125 deg. F. plus or minus 10 deg. F., while the water outlet temperature from the engine was 150 deg. F. plus or minus 10 deg. F. When the radiator shutters were operating, both inlet and outlet temperatures were within a few degrees of 175 deg. F. The low differential between inlet and outlet coolant temperature was due to the omission of the line thermostat and subsequent rapid water flow at all times.

All factors of operation of the two trucks were nearly identical including hours of operation, type of service, make and model of vehicle and accessories. The results from Geiger counter readings revealed that on both trucks the engine wear was 35 per cent greater when run at 150 deg. F., engine water outlet temperature, than when run at 175 deg. F. The trucks were not run against each other, one being hot and the other being cold, but rather both trucks were run both hot and cold for definite and like periods. Although one truck engine, for unknown reasons, wore faster than the other, the rate of 35 per cent greater wear when cold was consistent in both vehicles.

It was observed that it is not desirable to restrict a large portion of the coolant water circulation through the engine and radiator. When the water flow is slowed down through the radiator the temperature drop of the coolant increases and thus cold water is fed into a comparatively hot engine. Excessive variation exists between engine water inlet and outlet temperature when the water flow rate through the radiator is reduced by use of the line thermostat. With the thermostat set at a temperature of 150 deg. F., the engine inlet water temperature is only 125 deg. F. Thus a differential of 25 deg. F. exists across the engine. This differential would be even greater if a higher control temperature were attempted due to the necessary further reduction of water flow and subsequent increase in temperature drop through the radiator. Thus in controlling higher engine temperature by water restriction a smaller amount of even colder water is pumped into the bottom of the engine. This condition, according to Kysor, is bound to aggravate uneven expansion of the engine block with resultant stresses and warpage.

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COMMERCIAL C

There's Nothing Like AUTOCAR "DRIVER CAB" Comfort



PUT YOURSELF in the driver's seat!
You'll pick Autocar every time.

Riding ease, driver comfort and safety are in-built features that are exclusively Autocar.

The cab is roomier. It is fully insulated against heat and noise. And it stays together—because of the rigid, reinforced structural frame.

The wide-vision, curved windshield, the plastic glare-free sun visor, and the full-focus at-a-glance instrument panel all help make the driver a *better* driver.

It's a driver's truck, through and through. There's nothing like it!

... and there's nothing like the AUTOCAR "Full-Adjust" Seat

All the comfort of an easy chair because it adjusts exactly to the driver's wishes... exclusively Autocar! Cushion, back rest, arm rest, seat frame, front of seat cushion, all may be raised and lowered, moved forward and backward. More than a hundred positions in all!

It's typical of Autocar "custom" engineering—another reason you can do more... earn more... with Autocars.



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MORE!**

AUTOCAR TRUCKS

AUTOCAR DIVISION OF THE WHITE MOTOR COMPANY, EXTON, PA.

AUTOCAR DIVISION, The White Motor Company
Exton, Pennsylvania

Please send me more facts about the Autocar "Driver Cab"

Name

Title

Company

Address

City Zone State

3E



Laugh it off!

FATTY FLOORBOARDER, OUR BIG-FOOTED TRUCK DRIVER, SAYS: "HECK, NO. I'M NOT INTERESTED IN COLOR TV. MY 'BLACK AND WHITE' SET HAS ALREADY GOT ME IN THE RED!"

CCJ

Steno Lou: "Has your boy friend ever spoken of marriage?"

Steno Sue: "Well, yes, indirectly."

Steno Lou: "What do you mean, indirectly?"

Steno Sue: "Once he said he had never smoked a pipe because he never could try one out before he bought it."

CCJ

Steno May: "How do you like your new boy friend?"

Steno Fay: "Oh, he's all right, I guess."

Steno May: "What do you mean?"

Steno Fay: "Well, I did have to slap him a couple of times last nite, but it was only because I thought he was dead."

CCJ

Auto Parts Clerk: "I thought I heard you say she was a 'goody-goody' girl?"

Dynamometer Specialist: "I did. When we go out for a ride and I park somewhere, she always says: 'Goody-Goody!'"

CCJ

President Fleety-Fleet Express: "Son, since you are majoring in Business Administration at college, I take it you are getting some Accounting?"

Chip Off Old Block: "Yes, Father, I've had several semester hours of Accounting."

President Fleety-Fleet: "Then how do you account for this brassiere in your laundry?"

Job Applicant: "I understand that you have an opening for a Dock Foreman?"

Freight Terminal Mgr.: "Yes, we have an opening. I'm impressed favorably with what I see so far. I might be inclined to give you a trial if I thought you could handle the work."

Job Applicant: "Work? I thought you were looking for a Foreman."

CCJ

"Would you like a kiss?" he asked somewhat bashfully. The girl did not reply. Half an hour later he repeated the question. Again she failed to answer. More waiting, then another try: "Mabel, are you a shy touch-me-not?"

"No," she replied without emotion. "Are you paralyzed?"

CCJ

CANNIBAL CHIEF TO SON: "HOW MANY TIMES HAVE I TOLD YOU, JUNIOR, NOT TO TALK WITH SOMEONE IN YOUR MOUTH!"

— Cici Jay —



"I don't know how she does it, but she never fails to come up with the right letter!"

CUTE REDHEAD: "WHAT ARE WE GOING TO DO THIS EVENING?"

SAFETY SUPERVISOR: "LET'S TAKE A FEW DRINKS AND FIND OUT!"

CCJ

Curvaceous Cutie: "Oh, Herman, I'm so glad you had me enter the beauty contest. They've selected me as a finalist for the most beautiful back and the most beautiful bust."

Truck Mechanic: "Gee, that's swell, Sybyl. But aren't you terribly excited?"

Curvaceous Cutie: "Am I!!! Why I hardly know which way to turn."

CCJ

Traffic Rate Clerk: "I went out with a lovely blonde last night. She wore a stunning gown. It was topless, backless, strapless and sideless."

Billing Clerk: "Sounds like an original creation. I'd like to have one for my girl. What is it called?"

Traffic Rate Clerk: "'Good Morning, Judge.'"

CCJ

Bank Teller: "I guess this check is all right, young lady, but have you anything by which to identify yourself?"

Catty Cora: "Sure! I have a great big mole on my left breast—but I ain't showing it to you, Buster."

CCJ

Gorgeous Gertie: "I'm sorry, Hermann. I can't marry you. You'll have to make a little money first."

Yard Hostler: "Well, goom-by-baby. What I'm looking for is a girl who can make a little money last!"

Resume Work

COMMERCIAL CAR JOURNAL, May, 1950

choose the...

"3-way combination"
that grows with your needs!



BIG, SIX DRAWER
TOOL CHEST



TWO DRAWER
SECTION



EASY MOVING
ROLL CAB

Snap-on

TRIPLE UNIT
TOOL CABINET

Any way you look at it, you're out ahead when you choose your tool chest from this Snap-on "handsome threesome"! You can start with one unit, or any combination of units, that fits your present needs. You can add a unit as your tool equipment grows... and *know* that it will fit right and *be right*!

Built of electrically welded heavy gauge steel with reinforced tops and tube-type corners to withstand toughest service through the years ahead. Drawers are easy gliding slide run—can't sag, bind or pull out and spill tools. High grade tumbler type locks protect your tool investment.

Let your Snap-on Man show you the superior features and construction of this triple unit cabinet. The big 104-page Snap-on catalog includes a wide range of chests, Mechanikits, Coaster Cabs and Rolla-Benches. Ask your Snap-on Man for your copy, or write,

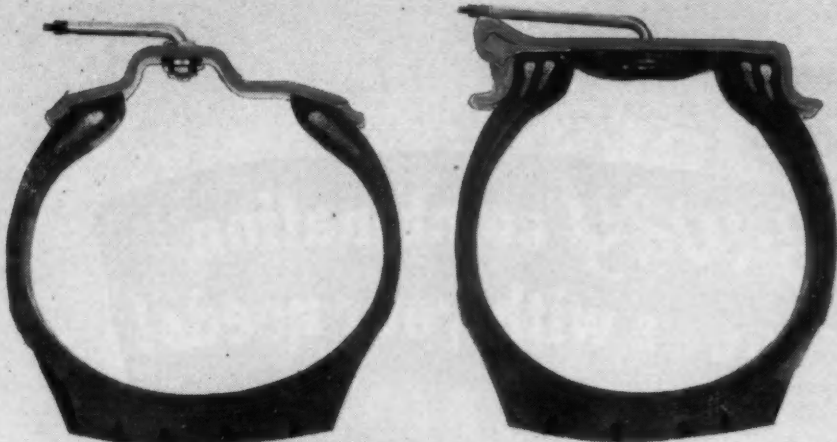


SNAP-ON TOOLS CORPORATION

8026-E 28th Avenue, Kenosha, Wisconsin



*Snap-on is the trademark of Snap-on Tools Corporation.



FIRESTONE

Drop Center

By Len Westrate

Detroit News Editor
Commercial Car Journal

or

The Battle of the Tubeless Tire

Firestone advocates a one-piece drop center with 15-deg taper and low flange. Goodyear proposes a 3-piece flat base rim sealed with a rubber O ring. Which one will be adopted? Industry will decide

▼ THERE IS NO question that tubeless truck tires in over-the-road sizes will come into general use but there still is some question as to just when. This may appear contradictory in view of recent publicity that tubeless truck tires now are available, but a special study by COMMERCIAL CAR JOURNAL indicates that there still are some

important decisions in the industry-wide program in large proportions.

There is even some truck manufacturers that are standard equipment company that up through 10 ing the step. less truck tire optional choice are announced

Fig. 1, Top. Firestone's drop center rim is contrasted with cross section of conventional assembly. Fig. 2, Below. Application of lubricant prior to assembly. Fig. 3, Right. Simplified mounting tools make tire changing an easy operation



Weight Savings

Advantages seem to be far in some markets weight actually. We had hoped charts showing assembly versus

However, different companies and definite connections there are so many on type of required, and cost savings are possible thought early

(T



GOODYEAR

Three Piece

Fig. 4, Top. Rim sections show construction of (from left) Goodyear's Tru-Seal rim, one-piece drop center and standard flat base rim. Figs. 5 and 6, Below. Simple mounting features O ring which lasts for life of the tire

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important decisions and agreements necessary on an industry-wide basis before the tubeless truck tire program in larger sizes is going to catch on in sizable proportions.

There is evidence that these decisions are starting to shape up and it now is quite certain that at least some truck manufacturers will offer tubeless tires as standard equipment on 1956 models. We know of one company that definitely has made a decision on sizes up through 10.00 and another one is very near to taking the step. It also is possible, however, that tubeless truck tires may be offered on new trucks as an optional choice at no extra cost before 1956 models are announced.

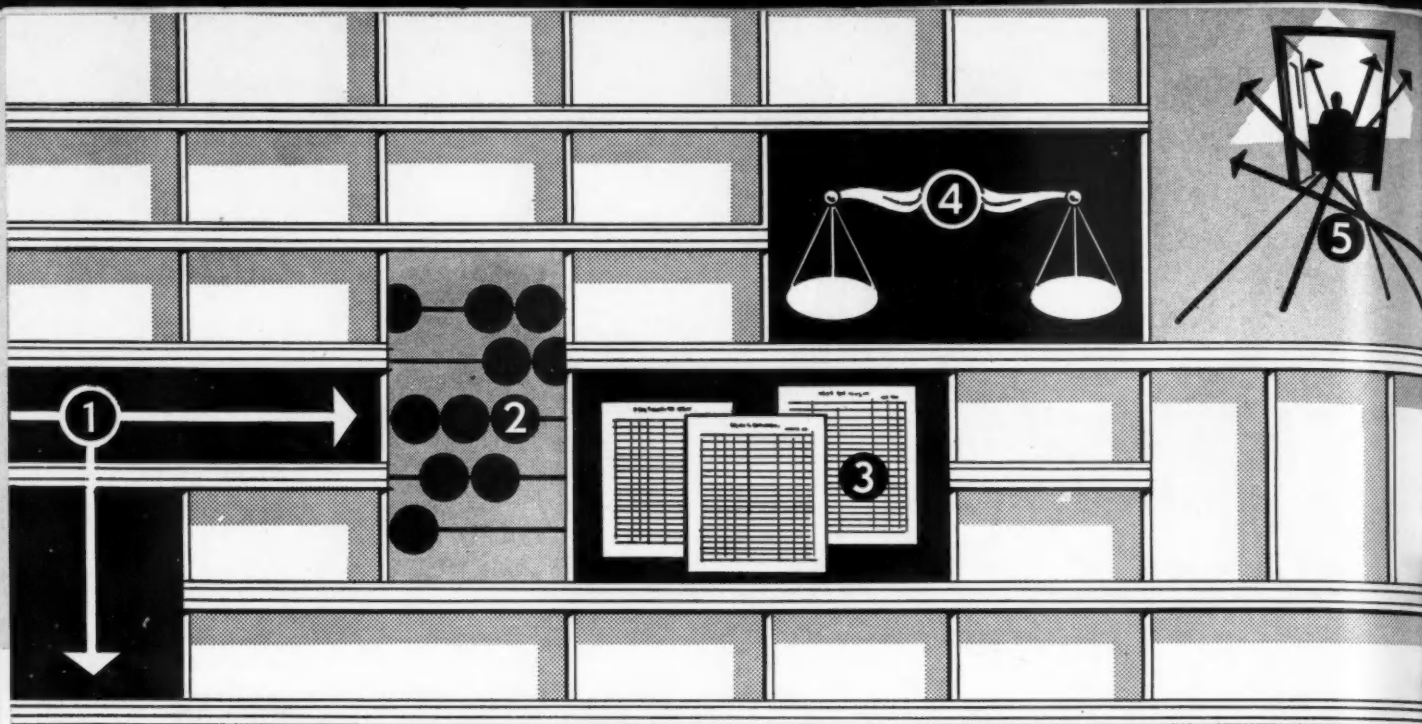
Weight Savings Are Possible

Advantages of tubeless tires for truck operation seem to be fairly well established. Admittedly there is some marked difference of opinion as to how much weight actually is saved by going to tubeless tires. We had hoped to present definite comparative weight charts showing data for a conventional tire-tube-flap assembly versus the two types of tubeless rim assemblies.

However, data from Firestone, Goodyear, truck companies and wheel makers vary so widely that no definite connection is possible. The reason is that there are so many ways to calculate weights depending on type of wheel, rim size and weight, adapters required, and other variables. It is agreed that weight savings are possible but apparently not to the extent thought early in the program. Apparently more

(TURN TO PAGE 128, PLEASE)





Streamlined Parts Inventory

Saves Time, Dollars and Paper

TWO and a half years ago, with 500 pieces of line haul equipment (170 tractors and 380 trailers), and around 600 pieces of city equipment such as tractors, trailers, pickup trucks, passenger cars and fork lift trucks, we operated eight shops, including our maintenance headquarters at Texarkana.

Our parts inventory, before we streamlined, was running around \$600,000. There was some grounds for having this far too-high inventory. We were coming out of the World War II shortage period. We were near enough to this shortage period to have our thinking conditioned to a policy of "Build big reserves and buy all you can whenever you can." Then, we had no effective central parts control system.

With this out-of-reason top heavy parts stock and a very poor record file and no central control, we were marking off each six months a parts shortage and adjustment loss

of between \$25,000 and \$50,000 for our over-all parts account.

Two years ago we streamlined our parts set-up and put in an efficient central parts control. We have a shuttle system so that needed parts can be sent from one shop to another on an hour's notice. We sold, traded, used and charged-off our parts account until two years ago it reached \$100,000 and today we are operating with a \$60,000 parts total and doing a better job that we did when we carried the figure at \$600,000.

Because of the closer supervision, the smaller parts stock to watch (\$60,000 instead of \$600,000) and the central parts control, we have reduced our semi-annual parts loss or charge off to a nil figure. Six months ago our charge off was \$1,100. For the end of '54 it won't run a third of that amount.

Better Bins Simplify Storage

Steel adjustable bins were in-

stalled in all eight parts rooms. This did two things: It enabled us to store our parts in an intelligent manner where they could be grouped and described by manufacturer's parts numbers.

It also had a psychological effect. An attractive parts room, with each part stored in a well kept steel bin, accounted for 100 per cent more cooperation by the parts men. They began to have pride in their departments and in their jobs.

Perpetual Inventory System

We then put in a parts control system of perpetual inventory.

Once the parts were screened and grouped in the new parts bins, a complete physical inventory was made throughout the entire ETMF system.

We next set up an individual card on each parts number with a master card system set up for the maintenance headquarters. This gave us a card record at each parts

room plus the focal point.

Better Parts

When the completed and furnished cards, we found we had an excellent fast-moving parts rooms which showed others.

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JOURNAL, May, 1955



By C. H. Rose,
Fleet Maint. Supt.
East Texas Motor Freight Lines

room plus the master cards at the focal point.

Better Parts Balance

When the inventory was completed and fully recorded on the cards, we found that on many items we had an excess stock and on some fast-moving parts we were dangerously low. Also at some parts rooms we were long on parts which showed up as short at others.

So the first job was one of shifting to get better parts balance. This eliminated a costly policy of having to purchase daily in small lots on certain parts at one shop and having a surplus of the same parts piled up at another shop. Instead

of buying, we shifted. We could do this budgeting of parts between shops now because we had for the first time a clear picture of every part stock and we were getting a picture of daily part demands.

When we found an overall excess parts stock, we either sold the parts outright for cash, or traded them to a dealer, taking credit to be used then or later for parts we did need. Also we turned in some parts to truck dealers who gave us credit, which we later applied to the purchase of new vehicles.

Parts Purchasing Routine

All parts departments have a perpetual inventory system which is kept up daily. All purchasing is

centrally controlled through a purchasing agent at the maintenance headquarters office; however, we do have a de-centralized purchasing system and allow shops to buy locally so long as they can obtain quality material at a price as low or lower than is shown on their perpetual inventory card.

By de-centralizing purchases we have been able to get a crippled vehicle back in operation in a matter of hours as against days sometimes required when the shop had to wait on central buying.

The priced perpetual inventory cards at each parts room serves as a guide for the personnel at that shop in making needed purchases.

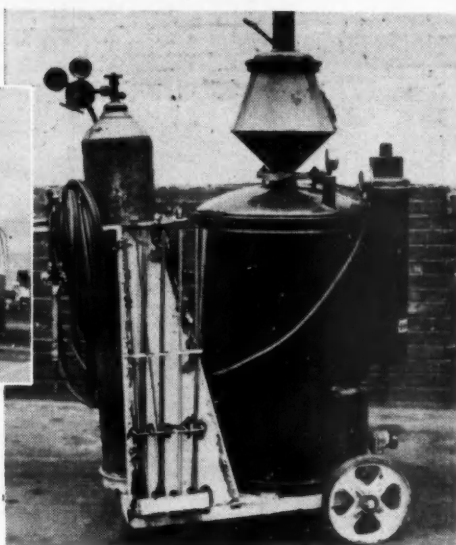
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10 Steps to Better Control

- 1 Steel adjustable parts bins simplify storage
2. Physical inventory shows what is on hand
3. Master card system is set up for the maintenance headquarters
4. Adjustment of inventory improves balance
5. De-centralized purchasing speeds service
6. Teletype coordinates purchasing
7. Store room charge sheets simplify control
8. Master perpetual inventory coordinates all stores
9. General accounting makes daily check
10. Red and blue flags show stock condition

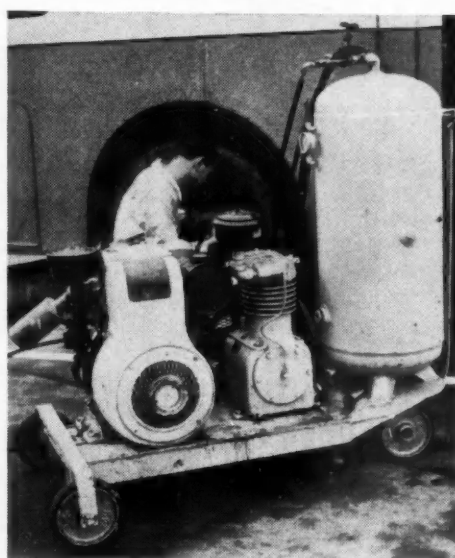
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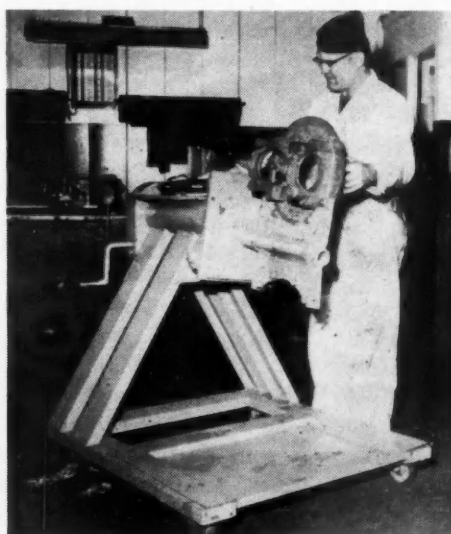


Fresno says it saves 60 per cent over cost of buying bottled acetylene gas by having its own generator. A conventional stationary unit is mounted on a wheeled, angle iron frame for portability. A "caddy" welded to either side holds the welding rods.

Shop Designed Tools Trim Bus PM Costs



Air compressor, 5-hp engine, 30-gal butane fuel tank mounted on wheeled, angle iron frame cut time in checking bus tire pressures in parking lot. Unit also is used when painting parking guide lines in the lot and the curbs of loading zones.



This engine stand is designed for a 4-cyl GMC diesel, can be wheeled into position and bolted to one side of block for engine removal. Fitted with an adaptor as shown here, it will hold a differential. It can also be used when working on a 6-cyl engine.

Moving-saving ideas translated into cost-cutting equipment are credited with helping to cut Fresno's maintenance cost almost $\frac{3}{4}\text{¢}$ per mile in two years

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COMMERCIAL CAR

VSTEADILY declining shop costs are credited with helping pull Fresno (Cal.) City Lines out of the red in 1954 according to Norman McSweyn, manager. Employees teamed-up with management to successfully reduce expenses. Result was that cost of operating the fleet's 12-man shop was reduced from 6.87 cents per mile in 1953 to 6.52 in 1954.

In 1952, the shop cost was 7.25 cents per mile, or a drop of .73 cents per mile in two years.

Money-saving ideas translated into cost-cutting equipment are one reason for the cut in costs. A picture tour of the 100 x 150-

ft shop shows some of this shop-designed and built equipment.

1. Acetylene Generator

A conventional stationary acetylene generator was made portable by mounting it on a simple frame of angle iron fitted with steel wheels. A "caddy" welded to either side of the frame accommodates several different kinds and sizes of welding rod. Total cost, including generator, was \$400.

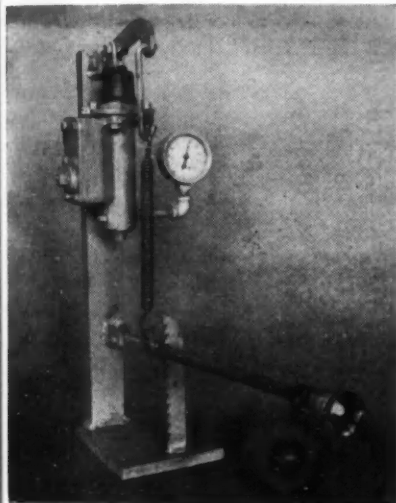
The saving is approximately 60 per cent over the cost of buying bottled acetylene gas according to Fresno, therefore making it worthwhile for this 42-vehicle fleet.

2. Portable Compressor

A portable air compressor is one of Fresno's most valued pieces of equipment. It is trundled out to the parking lot for checking bus tire pressures or for spray painting parking guide lines on the asphalt. It also is carried around the city on a pickup truck to spray paint curbs in the bus loading zones.

It consists of a 5-hp, Clinton engine, a Model No. A330-TV Kellogg compressor and a 30-gal butane tank mounted on an angle iron frame. The rig rolls on rubber tires and has a tongue for pulling

(TURN TO PAGE 116, PLEASE)



Brake spring tension tester is hydraulic operated, uses an old master cylinder from a Jeep. Springs are paired for length and tension



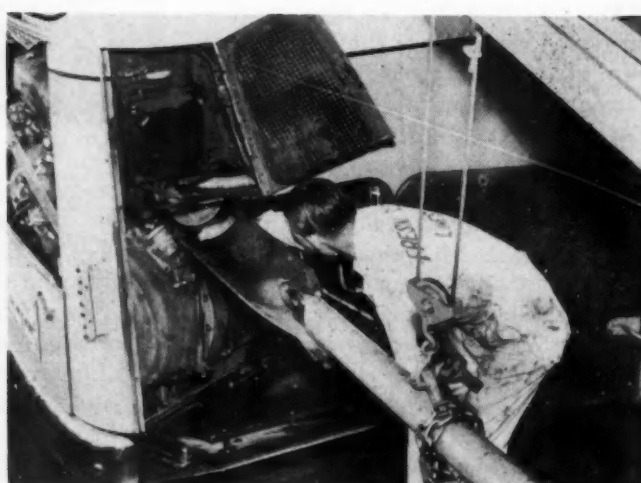
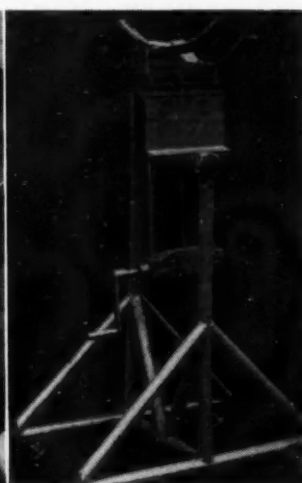
Engine parts rack holds an entire disassembled engine. Four tiers of expanded metal permit parts to be steam cleaned right on the rack



As wheel being tested revolves, a small roller actuates out-of-round gage on this shop made unit that checks both the wheel and the rim



Rear-end jack was built from scrap for less than \$8, permits one-man removal of differentials on all GMC coaches up to Model No. 4509. The gear box is from an old transmission overhaul stand for model T Fords



This device is hooked up to a "Handy Andy" and, like a spoon, slides under the generator that is to be removed. It permits easy, one-man removal or replacement of a usually heavy and hard-to-get-at component

with
years

NAL, May, 1955

COMMERCIAL CAR JOURNAL, May, 1955

Truck Drivers Go to College

... at North Carolina State, where this six-year old training program proves the value of thorough grounding of drivers in skills and attitudes—helps fleets to better safety records

By Bart Rawson, Editor
Commercial Car Journal

TRUCK DRIVER schools have come and gone in many parts of the country but the North Carolina State College School at Raleigh goes on, seemingly, forever.

Now in its sixth consecutive year, it is by far the oldest school of its kind in continuous existence, has turned out more graduates than any other (2000 to date), and as far as we know is the only one run as a regularly-scheduled extension course of a state college. Carriers from 37 different states and six foreign countries have benefited by its graduates and many truck operators along the eastern seaboard states are relying almost 100 per cent on the school for new driver recruiting.

There can be no question that the school is on the right track, and that it is one of the best things that has happened to the industry in a long while. COMMERCIAL CAR JOURNAL hopes that all carriers will consider its relative merits carefully; may even encourage the founding of similar

schools in other parts of the country.

Despite the fact that the school has its own publicity director, in the well-equipped form of Miss Peggy Cheers, we wanted to see it first hand. Recently, we were able to schedule a day in Raleigh. There we noted the following capsule facts, then traced some of the background and the results achieved by its graduates. First the facts:

Full Time Course

The course runs for a full nine hours a day, five days a week, for four weeks. Next class will begin on Monday, May 30, and remaining courses for the year fall on July 4, August 1, September 5, October 3, October 31, and November 28.

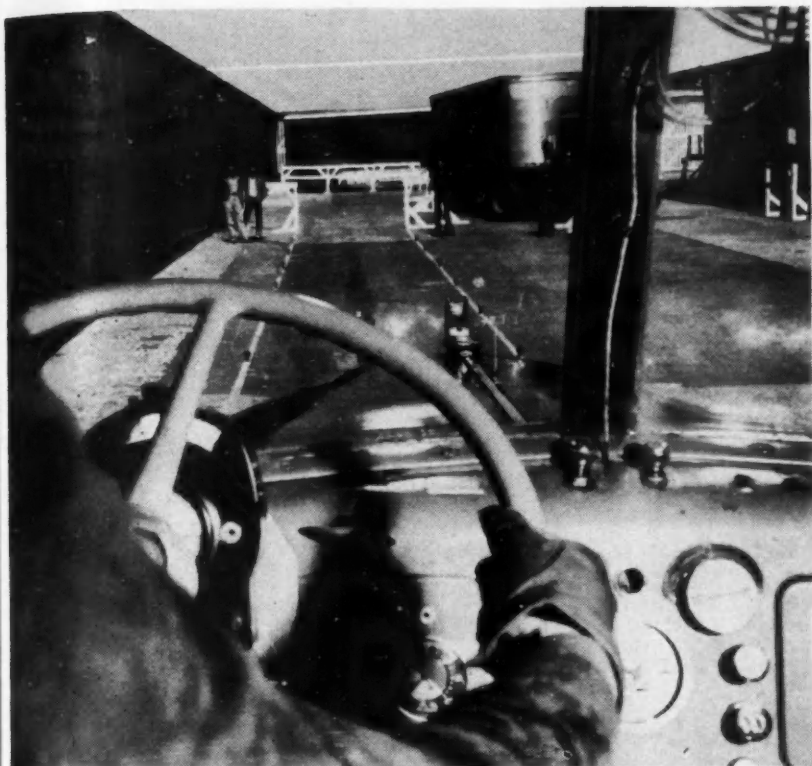
The course is administered as a regularly scheduled extension course of the North Carolina State College. There are, incidentally,



Above. Watching in the area. Left.

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Above. Watch it! Good drivers get better with intensive practical training in the field. Below. Typical vehicle in action at airport practice area. Left. Russ Haynie, Jr., supervises a morning's classroom activity



some 25 such courses available from fishing to industrial engineering plus numerous conferences and extension classes, all under the guiding hand of Extension School Director E. W. Rugles.

Head man for the truck drivers' school is Russell M. Haynie, Jr., former safety supervisor of Virginia Trailways, and a natural for the job. Number two man is George McAfee, formerly of Pilot

Freight Carriers in Winston-Salem, and himself a graduate of the school.

No Experience Necessary

Entrance requirements are simple for anyone genuinely interested. There are no special educational requirements but each applicant must have a valid driver's license, be over 21, and be "of good character, mentally alert, and physically qualified." No pre-

vious commercial driving is required.

Tuition for the four weeks' course is \$125. Rooms on the campus are available at \$14 for the entire course and meals in the college cafeteria average \$36 for the course. While there are no scholarships available, a deferred payment plan can be arranged.

Inside and Outside School

Classroom activity occupies most of the morning sessions, includes thorough grounding in ICC regulations, accident prevention and handling, court procedures, maintenance, freight handling, fire fighting, first aid, and a series of subjects dealing with the background necessary for good road operation.

Afternoons are normally spent on the field course, which is set up on the parking apron of a little used airport just south of Raleigh. Here actual instruction includes the handling of both straight trucks and tractor-trailer combinations, and proper maneuvering techniques with a series of obstacles set up not at all unlike the familiar state truck rodeo field courses.

By the fourth week the course includes actual on-the-highway driving under close supervision, and before graduation, the student must be able to handle the big rigs right through the heart of downtown Raleigh traffic.

So much for the factual detail. What is the school accomplishing and how did it get that way? You can bet your life that it just didn't happen.

The field course is as good a place as any for further comment. On the afternoon we were in town, the class had progressed to the handling of tractor tandem-axle trailer combinations through a reverse serpentine course. We watched for nearly an hour as an instructor put the bee on one particular student.

He was a young lad from Tennessee and until a week before had never sat at the wheel of anything bigger than his family's passenger car. You can imagine that his first attempt through this diffi-

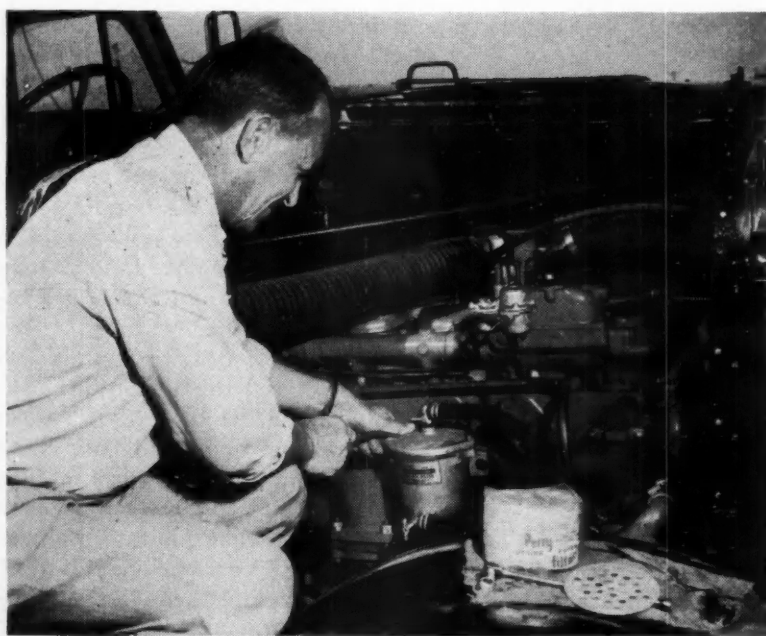
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Left. "Shock pressures" and vibration cause this type corrosion. Use of chemicals in the coolant and increased operating temperatures will reduce this cavitation. Above. This is damage resulting from electrolytic action. It can be controlled through the use of the proper chemicals in the system. Below. Filters will also help cut cylinder sleeve corrosion in diesels.

Electrolytic action can be

Cylinder Sleeve Corrosion—Causes



Termites on the water side of diesel

V MOST FLEET operators, as a result of bitter experience, realize the high price tag attached to diesel engine cooling system neglect. None dispute the fact that rust and scale deposits cause expensive engine overhauls and lost time due to road break-downs. Valve failures, piston seizures, radiator cleaning, and termite-eaten sleeves have all added their share in convincing fleet operators that cooling system maintenance is profitable.

The water side deterioration of

diesel engine fleet industry attributed to more than to any other factor. Some differences of opinion exist on minor points, but on major points, and chemists

"Termite"

Frequently the water side of diesel engines are the well-known water holes in



Electrolytic action which causes this type of cylinder sleeve cavitation can be controlled by adjusting pH quality of the water

By Don Smith

White Machine Works, Los Angeles

n— Causes and Cures

of diesel sleeves can be eliminated. Here's how.

diesel engine sleeves, known in the fleet industry as "termites," is attributed to several causes rather than to any one specific reason. Some differences of opinion on minor points of theory still exist, but on major points both engineers and chemists are in agreement.

"Termite" Cavitation

Frequently found on the water side of diesel engine wet sleeves are the well defined small diameter holes in a concentrated pat-

tern about midway between sealing ring lands and top flange. These are now accepted as being caused by either, or a combination of both of the following conditions. One accepted theory is that irregularities in fluid flow cause low pressure areas in which minute bubbles, vapor pockets, and vacuums are instantaneously formed. When these vacuum cavities or bubbles collapse, they release terrific surface energy, causing impacts on adjacent surfaces estimated at sev-

eral tons per square inch. These shock pressures are believed to literally "blast off" sections of porous or brittle metal, causing cavitation referred to as "termites."

A combination of two methods has proven to control most of this destructiveness. One is to increase the temperature of the coolant which decreases the destructive force of the collapsing bubbles. A number of engine operators report materially decreased sleeves termite action after merely raising coolant temperatures to approximately 190 deg F. Additional results are accomplished by using a chemical in the coolant which will form a self-renewing seal on the sleeve surface to absorb a portion of the impact of the collapsing bubbles and vacuums.

This combined control has proven it can stop this type of sleeve cavitation almost 100 percent when the chemical is maintained at a sufficiently high concentration in the coolant. Among the more effective chemical combinations are sodium chromate formulas for use with water and nitrate, nitrite and borate formulas for use with antifreeze solutions.

Vibration Cavitation

The second cause of this type of sleeve cavitation centers around vibration. In laboratory tests, a piece of metal suspended in a fluid and subjected to high frequency vibration has shown the same type of deterioration that is found in termitized sleeves. The severity of the attack can be gaged by the fact that the wall of a sleeve can be completely penetrated in a period comparable to a few hundred hours of actual engine operation.

Electrolytic Cavitation No. 1

Another particularly troublesome type of sleeve corrosion is to be found at the lower end of the sleeve and generally in an area starting in the sealing rings lands and extending upwards as much as two or three inches. This type of sleeve corrosion attacks both sleeves and block and is responsible for many instances of coolant leaking into the lubricat-

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\$10 →

Shop Hints

\$25 ↓

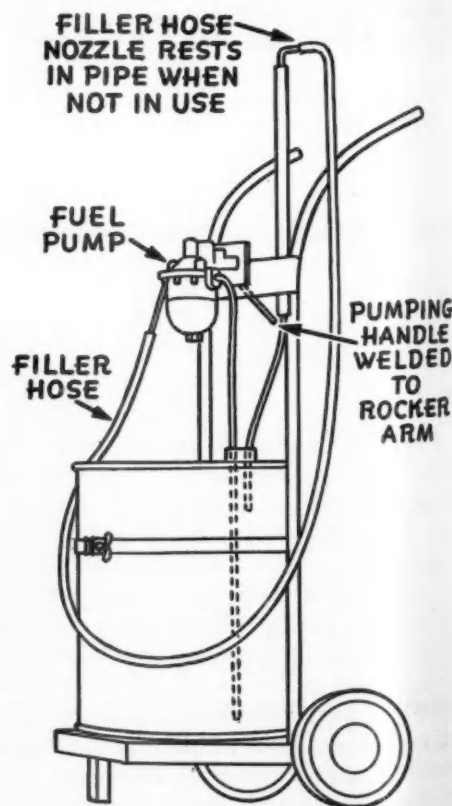
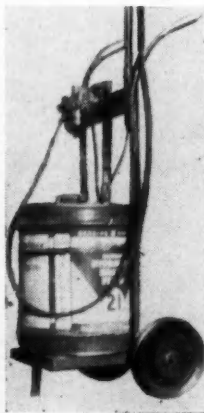
Here are some swell time savers for fleet shops.
Let us have your ideas for new tools or short cuts
to service. We'll pay \$10 and \$25 for good ones.

Brake Fluid Dispenser

By C. H. Starling, Garage Superintendent
American Bakeries Co., Fayetteville, N. C.

Purpose of this dispenser is to save time, prevent waste of brake fluid and to keep it clean of any particles of trash. Base of the dispenser is made of 1/2-in. angle iron with 1/2-in. rod axle. Wheels are discarded fan pulleys with wooden bearings. The framework and handles are 1/2-in. conduit pipe. Band iron, measuring 1/8 x 1 1/2 in., serves as a base for the pump which is a discarded fuel pump.

A 3/8 x 8 in. rod welded to the rocker arm serves as a pump handle. The suction pipe, extending to the bottom of the brake fluid drum, is 1/4-in. copper tubing. The pressure outlet is 4 1/2 ft of windshield wiper hose fitted with a curved copper tubing nozzle at the end. When not in use, this nozzle fits into a 1/2-in. conduit return pipe. This pipe connects with copper tubing to return the excess fluid to the drum. An iron band of 1 in., 20 gage tin fitted with a 1/4-in. bolt and thumbscrew holds the 5-gal can of brake fluid in place.



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By Thomas

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By F. Fran

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Masking Tape Protects Brake Shoes

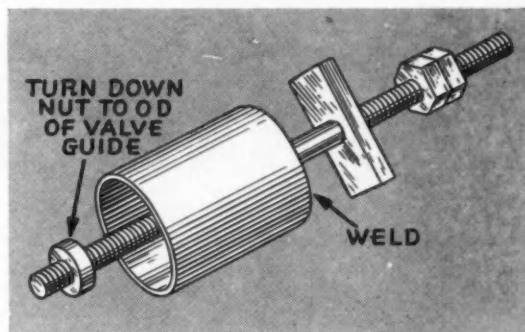
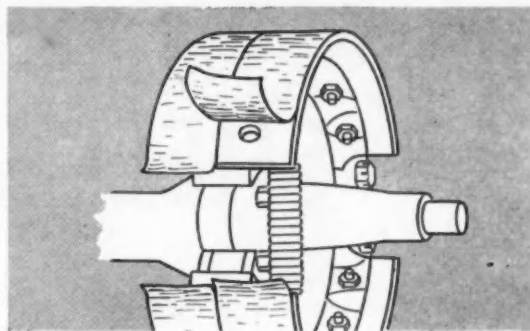
By Michael J. Bady, Houston, Texas

When doing a brake job and installing shoes with new lining, I put masking tape over the lining after putting the lining on the shoes. This keeps the new lining clean and free of grease and dirt while I am installing the shoes. After the shoes are completely installed, it is easy to pull the masking tape off.

Puller Speeds Valve Guide Removal

By Thomas E. Davis, Barbara Ann Baking Co., Los Angeles, Cal.

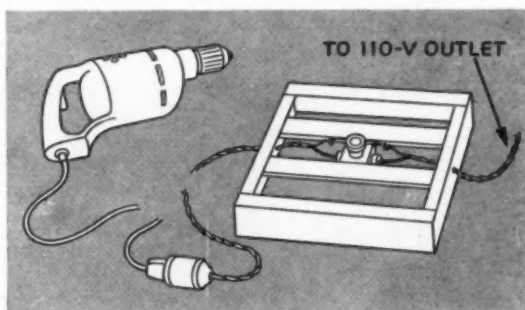
This puller can be used to remove and install valve guides. I use it on White engines. It is very good for the No. 12 valve where it is hard to get to. I also use it for installing the rear bearing on Chevrolet four-speed synchromesh transmission. It consists of a piece of 2-in. pipe about 2 1/2 in. long, a piece of 3/8-in. rod threaded 3 1/4 in. on each end, a 2-in. heavy washer, and a 1/4 x 7/8 x 2-in. piece of flat iron. Three nuts complete the puller as shown, with one nut turned down to the outside diameter of the valve guide. The washer is welded to the end of the pipe. To remove the guide, insert the rod through the valve guide and, reaching around, thread the round nut on the rod. Tightening the top nuts with a wrench will pull the valve guide.



Foot Switch Eases Power Tool Work

By P. R. Coleman, Garage Foreman, Alan Wood Steel Co.

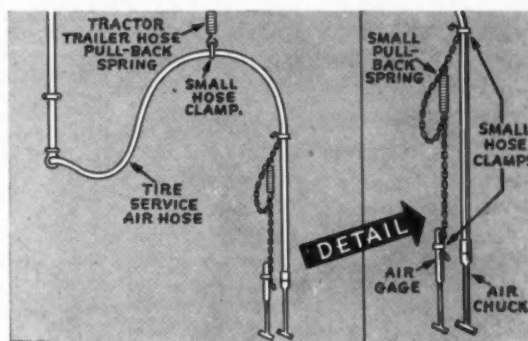
We have found a foot switch very handy in connection with power tool work, especially for some drilling or honing jobs that require both hands. In these cases, with a floor switch, the drill can be mounted in a vise to leave the hands free. The switch is easily made from a direct truck foot starter mounted in a box frame 8 x 10 x 3 in. deep. An electric plug and socket and 10 ft of double wire are all that is needed to complete the job.



Rig Keeps Air Hose and Gage Handy

By Lee Miles, Trailer Shop, Wilson Freight Forwarding Co.

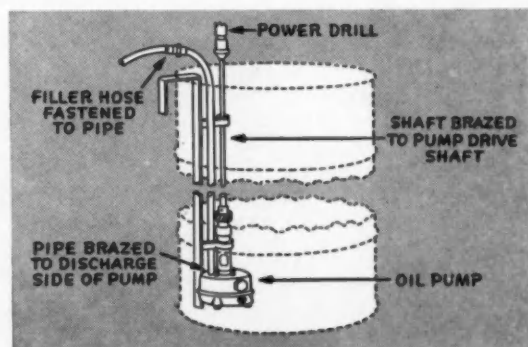
We use this rig for airing tires on our trailers at time of final check-out. We have two of these convenient and time-saving rigs on the wall of our safety lane, one to service each side of the trailer. The small pull-back spring on the tire gage keeps the gage off the floor when at rest but allows the longer reach we have found desirable when airing dual tires.



Drill Powers Gear Oil Dispenser

By F. Franco, Mechanic, Metropolitan Coal Co., Chelsea, Mass.

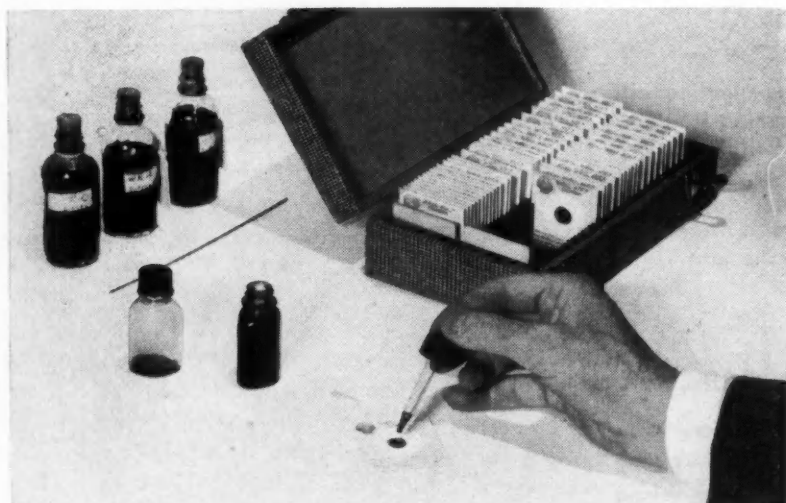
A discarded oil pump can be used to pump gear oil into transmissions and differentials using an electric drill for power. Braze to the pump drive shaft a shaft long enough to reach above the top of the oil drum and of a size to fit into the drill chuck. Brace this shaft and pump as shown with a hook-shape piece of flat iron to keep it from turning in the drum. To the outlet side of the pump, braze a length of pipe sufficiently long to clear the top of the drum and to the top of this pipe fasten your filler hose. Attach the drill to the shaft and you are all set to start pumping.



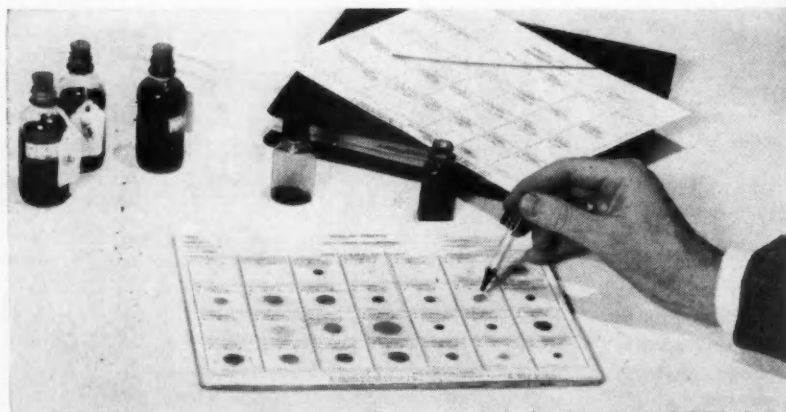
PUMPING
HANDLE
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TO
ROCKER
ARM

SHELL'S OIL ANALYSIS

Tells Maintenance Story



Above. Another type of record system used with the new analysis has individual squares of filter paper carried in a portable filing case instead of regular test sheet with space for 28 samples of oil



Check-up can be made in fleet's shop without laboratory equipment for alkalinity, dispersion, and contamination of engine oil

ENGINE OIL analysis without laboratory equipment is the big feature claimed for Shell Oil's new "ADC Oilprint Analysis." Using drops of oil from an engine, a trained oil man can detect *alkalinity*, *dispersion* and *contamination* (ADC) right in the fleet shop.

As a theory, the oil print idea has been known for years in the laboratories of the petroleum industry. The technicians knew that drops of different oils make different patterns on absorbent paper, and they knew that these patterns indicate dispersancy and contamination.

But these tests alone are not enough. Oils can also become ineffective when their alkaline additives become too depleted to effectively combat acid action. Tests using "chromatography"—separation of the oil's components into their distinctive spectral colors—make it possible to determine the alkalinity or acidity of the oil.

(TURN TO PAGE 126, PLEASE)



First step is to obtain the oil sample, drop it on squares of filter paper. Engine should have been running within a few minutes of taking the sample for the most accurate analysis

Dispersion and contamination are checked as oil spreads on filter paper. Test for alkalinity is made by adding a drop of a special fluid, watching for color to change in sample

*You
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NATIONAL SAFETY COUNCIL MOTOR TRANSPORTATION DIVISION



PROBABLY THE largest organization of its kind in the world, the National Safety Council is America's chief safety promotion body and is concerned with all activities aimed at keeping Americans free from accidental injury or death.

Acting as a source of accident statistics and information in all fields, the Council is frequently quoted by the press, magazines and radio and TV commentators.

To fleetmen, however, the Council is more than merely a source of information. To many fleets, the Council is virtually a working partner, supplying them with useful materials and ideas which can be used to reduce costs through improving driver performance. In effect, through subscribing to the Council's services, these fleets add a staff of safety experts to their safety department at nominal cost.

Most Council activities in the highway transportation field are handled through its Motor Transportation Division. The division is, in turn, divided into Commercial Vehicle and Transit sections.

The spectacular growth of the Motor Transportation Division shows the wide acceptance of the Council's work in fleet accident prevention. The growth of the Commercial Vehicle Section in the past 10 years has far out-distanced that of the other sections, and this section is now larger than any of the industrial sections. Membership in the Motor Transportation Division has increased by nearly 50 per cent since

1948, growing from 1187 members in 1948 to 1692 in 1954.

Major purpose of the Division is to serve truck, bus and passenger car fleet operators by collecting information on the best practices in automotive safety, screening them for proven effectiveness, and molding them into standards of accident prevention procedure. Additional activities include the conduct of annual safe driving contests, collection of statistical information on traffic and employee accidents and production and distribution of materials and services which may be used by fleets in their safety program.

Any individual, company, association, industrial or government organization interested in improving automotive safety may become affiliated with the National Safety Council. For fleets, annual dues range from a minimum of \$30.00 for companies with nine or fewer

drivers to a maximum of \$1.15 per driver for companies with 2000 or more drivers.

Activities and Services

Whether your fleet is small or large, engaged in city, over-the-road or off-the-highway operation, affiliation with the Council and its services can be a worthwhile investment.

The Council offers a full set of weapons for use by fleet management and supervisors in their war against

(TURN TO NEXT PAGE, PLEASE)

Sixth of a Series

The accompanying article on the Motor Transportation Division of the National Safety Council is the sixth of a series devoted to groups serving the highway transportation industry. In June, the American Transit Assn. and the National Assn. of Motor Bus Operators will be featured.

**HERE ARE
FEATURES
OF THE
COUNCIL'S
MOTOR
TRANSPORTATION
SERVICE**



ACCIDENT STATISTICS

An annual round-up, with over 100 pages of information, including frequency and severity of motor vehicle accidents, analyses and summaries of various factors involved, plus statistical summaries issued in connection with award contests



FLEET SAFETY MANUAL

Shows how to establish an effective safety program. Covers such subjects as program organization, driver selection and training, records, review committee and other elements of installing a new program or revising an existing system



PUBLICATION SERVICE

More than 4000 safety promotion items are available, including films, booklets, incentive awards, technical studies, training aids and reminders of every useful type



FLEET SAFETY CONTEST

Fleets compete against others of similar size and operation for national award. Contest interests drivers, gathers accident experience data, aids winners' PR



accidents. These range from a manual which shows how to set up a program that works, through many materials and services which may be incorporated in the program. The major services in the NSC safety program are shown in the accompanying chart.

Affiliation with NSC means that your safety department has access to more than 4000 items produced by the Council for promoting accident prevention at a small fraction of what it would cost you to produce them. Items available include safety films, booklets, incentive merchandise awards, technical studies, training aids and refresher materials of every useful type. And many of these are tailored to your own particular type of operation.

As a member of the Motor Transportation Division, you are also entitled to other benefits. These include the right to consult with the Council's staff on your safety problems. At headquarters in Chicago there is a full-time team of more than 300 persons, including many trained and experienced specialists equipped to answer the questions you pose by mail, wire or phone. To assist them in coming up with the right answer, they can draw on the experience of more than 1000 fleet operators and can refer to the Council's library, which contains the greatest collection of safety information in the world.

Members are also eligible to attend the National Safety Congress, held for a week in mid-October each

year. The Congress consists of a series of talks and discussions by the country's leading safety authorities and offers an opportunity for fleetmen to meet and exchange ideas on mutual problems.

Safety Philosophy

Despite the size and variety of NSC activities, the Council's method of operation may be described rather simply. Its purpose: to prevent accidents. Its approach: education, re-education, research, reminders and incentives, combined in a comprehensive program.

The Council offers incentives for drivers and for management. For drivers, there is the NSC Safe Driver Award. Now worn by more than 650,000 professional drivers, this award takes the form of a distinctive cap badge, key chain or lapel emblem and a wallet certificate which shows the number of years of safe driving which the driver has to his credit. The award provides drivers with visual evidence of national recognition of their driving ability and acts as an incentive and morale-booster.

Through its National Fleet Safety Contest, the Council accomplishes several results. It offers fleets an opportunity to gain national and local recognition for their safety efforts, it gathers standardized accident reports which may be used in its statistical work and which act as performance yard-sticks. In this contest, a fleet competes in one of 27 divisions against

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ACCIDENT PREVENTION INFORMATION

News letters and magazines and other aids designed to aid fleet safety supervisors to keep their accident prevention program operating at peak efficiency. "Fleet Flashes" for truck operators and "Transit Topics" for bus men are news letters edited by fleet safety men in the field covering new methods and equipment, novel promotional stunts and gadgets, technical developments and news.



SAFETY REMINDERS TO DRIVERS

A complete set of driver letters, posters, magazines and other items written in "driver language", sprinkled with humor and designed to convince drivers that there is good sense in driving safely. Posters are keyed to specific types of operation, show major accident-causing factors



ANNUAL SAFE DRIVING CONTEST

Heart of NSC services, the award gives driver national recognition of his ability. Instructions to drivers entered in contest spur driver interest, instruct them in safe driving practices. Follow-up materials maintain interest



NATIONAL SAFETY CONGRESS

Biggest annual safety event at which more than 12,000 delegates spend a week discussing safety, learning new ideas, exchanging experiences. Talks and papers are reproduced for future reference



other fleets of similar size and type of operation. Winners receive handsome trophies and excellent public relations and publicity opportunities. This is the nation's largest contest for motor transportation fleets, and is the only one in which the records of winning fleets are audited before the winners are announced.

Through the Marcus A. Dow Memorial Award which the Council administers for the Greyhound Corporation, safety engineers can gain recognition for their outstanding work in preventing fleet accidents. This award not only spurs these men on to greater achievements, but serves to encourage other fleet safety men to strive for the honor in the future.

Educational materials and safety reminders take many forms. For management, there is the basic fleet safety manual and many publications designed to keep a fleet intelligently active in accident prevention. For drivers, there is the manual "For Experts Only," which shows how they can qualify for the annual Safe Driver award, as well as hundreds of posters, publications, cab cards and mailing pieces designed by professionals to get the safety messages across effectively.

Accomplishments

How effective has the Council and its members been in the field of accident prevention?

In 1952-53, reports from 1427 fleet-members of the

Motor Transportation Division showed an average accident rate of 1.84 per 100,000 miles. These reports covered 362,662 vehicles travelling nearly three billion miles. This is an average of about 54,000 miles per accident. Since 1932, there has been more than a 50 per cent reduction in the accident rates of members reporting to the Council.

In addition to fleet-by-fleet comparisons, the National Fleet Safety Contest serves as a means of gathering motor vehicle accident statistics for entire fleet industries. As co-sponsors of divisions of the Contest, the Milk Industry Foundation, the International Association of Chiefs of Police, National Automobile Transporters Association, and the American Gas Association offer their members an opportunity to compete in the contest. In addition to making joint awards with the National Safety Council for achievements, these associations obtain statistics and accident trends for their individual industries.

The United States Post Office Department is also now making use of the National Safety Council program to improve its fleet operation and obtain safety information. As of January 1 of this year, the Department has enrolled approximately 100,000 of its drivers under the Complete Motor Transportation Service and is in the process of certifying its drivers for the Safe Driver Award.

(TURN TO NEXT PAGE, PLEASE)



Here's What Fleets Say About the Council ...

Ten Times Safer

"We started using National Safety Council transportation service in 1934 and our claims cost has dropped from approximately 4 per cent of the gross revenue to 1 per cent. Our accident frequency has been reduced from one accident in 6000 miles to one in 60,000 at the present time. This membership is the foundation of our safety program and the results have been tremendous."—Transit Operator.

Investment Returned Many Times

"We feel we get our investment in National Safety Council membership back many times over as is evidenced by our fleet record. We couldn't buy the safe driver's cap badges for the price of our membership."—Private Carrier, Minneapolis, Minn.

Accident Frequency Greatly Reduced

"We have derived a great benefit from participating in the National Safety Council's Commercial Vehicle Section. The materials and services we receive from the Council are very helpful to us. They have resulted in greatly reducing our accident frequency and in keeping our insurance costs very much in line."—Common Carrier, Portland, Ore.

Substantial Insurance Rebates

"Since we joined the Council in 1940 our accident experience has shown improvement every year, with the exception of two years, and we have had substantial rebates from our insurance company."—Private Carrier, Oklahoma City, Okla.

Accident Cost Down 2/3 in Five Years

"During the five years of Council membership, our accident frequency has steadily decreased, and our accident cost is now about one-third as great as it was five years ago. We value the services of the Council above all other parts of our safety program and this feeling is shared by our drivers."—Common Carrier, Winston-Salem, N. C.

Accident Frequency Down to .96

"In August, 1946, when our company started using the National Safety Council's complete service, our accident frequency rate was 7.001. Today, after using these services for seven years, our frequency rate is 0.96. In seven years our return insurance premium has been substantial because of the decrease in accidents. Reduction in time lost, repairs to busses, and claims certainly make it worthwhile."—Government Fleet.

Worth \$10 for Every \$1 Spent

"We have been a member of the National Safety Council since 1928. The membership fee, we feel, has repaid the company at least \$10.00 for every \$1.00 expended. We hope to be a member of the Safety Council for many years to come for membership in the Council is an investment and not an expenditure."—Private City Fleet, Chicago, Ill.

Makes Possible Control of Fleet

"The National Safety Council transportation service has enabled us to establish a standardized administrative control of our fleet operation. Before the inception of this service, we were not getting proper accident reporting or maintaining good accident analysis—nor were we able to sustain proper interest of operators and supervisors in the fleet accident program. There is now a marked contrast to this pre-service confusion."—Government Fleet, Texas.

Council Services Pay Big Dividends

"I feel much of our success in safety can be directly attributed to the National Safety Council's Complete Motor Transportation Accident Prevention Service. In the past two years we have enjoyed a 25 per cent reduction in our accident frequency which has, of course, been the direct cause for greater discounts in our insurance rates. This all adds up to the fact that through fewer accidents and greater insurance discounts Council services are paying our company big dividends."—Transfer Fleet, Peoria, Ill.

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UTILITY FLEET Operators' Meeting in Cincinnati middle of last month came up with some very interesting discussions on present day fuels, lubricants, and oil filters, and staged a heated discussion on the pros and cons of vehicle leasing. For good measure, they heard a paper on automatic transmissions, and listened to the merits of the new airless paint spray system developed by Bede Products Corp., Cleveland, Ohio.

The event was the annual meeting of the Joint Motor Vehicle Committees of the American Gas Association and the Edison Electric Institute. About 300 fleet men were in attendance along with several hundred others interested in the distribution and corrosion conferences of AGA.

Fuels Keep Pace

In a carefully prepared discussion, G. W. Pusack of Socony-Vacuum Oil Co. presented charts and graphs to show the tremendous increase in horsepower, compression ratios, and octane requirements of recently developed engines, then thoroughly convinced his audience that present day fuels have more than kept pace.

While anti-knock requirement is still a major consideration of modern day fuels, Pusack pointed out that they must also be designed to prevent pre-ignition and spark plug misfiring, must hold fuel system and manifold deposits to a minimum, prevent rust and engine-formed gum, must be properly adjusted for weather even though temperatures can vary as much as 40 deg in a single day. In addition, they must provide for starting ease and quick engine warm-up, must prevent carburetor icing and vapor lock.

The answer to nearly all of these problems, Pusack continued, lies in additives built into the fuel, a situation which has brought forth the disturbing development of mysterious claims in recent advertising campaigns. None the less, additives do the job.

For instance, on anti-knock requirements alone, one modern engine when clean requires a fuel

Utility Operators Talk Shop at AGA Meet

... learn that fuel and oil play an important part in economical stop and go operation, hear that standardized lubes and multi-vis oils save time and inventory, take another look at leasing

with an octane number of 90, but after only 2500 miles of service, this is increased to 97. With proper additives the requirement can be brought down to the original standard. A similar engine with 2500 miles requires 98 octane to eliminate pre-ignition, but with additives in the fuel this requirement can be brought down to 92 after only 100 additional miles of driving. In conclusion, Pusack intimated that all gasolines were greatly improved but that never in history was the market more competitive. Hence, fleet operators consuming large quantities of fuel would do well to make sure of the detailed specifications that they are buying.

Hi-Additive Oils

Similar improvements in engine oils were advanced by an old hand at the game, William A. Howe, of Gulf Oil Corp. Here again, additives have played a tremendous part in improving anti-sludge characteristics of engine oils in stop-and-go driving operations.

Four years ago at the same convention, Howe strongly recom-

mended the use of high detergent oils in this type of operation, including the two military specification types. Since that time, oil has progressed to two new types, the Supplemental 1 and Supplemental 2. These appear to be still further improving the sludge problems in cold temperature stop-and-go driving. There seemed to be little argument from the audience that at least a military specification type is required in local service, and many are already using the Supplemental 2 type.

Howe also pointed out the relative advantages, despite much higher cost, of the new multi-viscosity oils (i.e. 5W-20 and 10W-30). He suggested that use of this type of oil be carefully tailored to the individual operation. He pointed out that virtually all of the multivis oils were at least of Supplemental 1 character in additive specifications, and that they could materially reduce wear in many types of operations.

Standardized Lubes

On the subject of standardizing (TURN TO PAGE 164, PLEASE)

New PRODUCTS

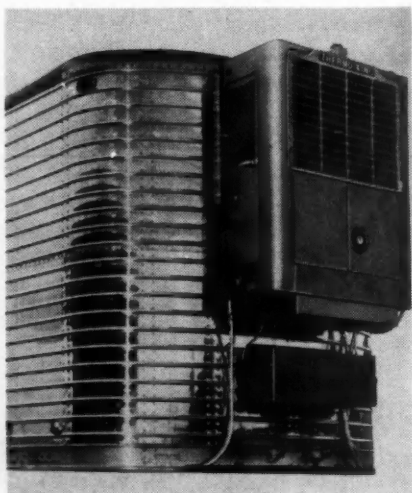
The latest developments in parts, accessories, tools and equipment for the fleet field, described in brief for your convenience

P1. Acid Pouring Spout

E. Edlmann & Co., Chicago, is marketing a new battery acid pouring spout, the Model No. 89. Made of unbreakable, acid-resistant plastic, it is designed to eliminate the danger of damage or injury from splashing acid, insure accurate filling, insure a steady, air-free flow of acid, which stops automatically when the proper level of electrolyte in the battery is reached.

P2. Reefer Units

U. S. Thermo Control Co., Minneapolis, Minn., has announced that the new Thermo King models RL and KL truck refrigeration units are now being produced. These new "pancake" models are up to 40 per cent thinner than previous comparable models and are designed to fit the new cab-over-engine longer trailer trend in trucking. Models are available for both cooling and heating in engine, electric and combination engine-electric power.

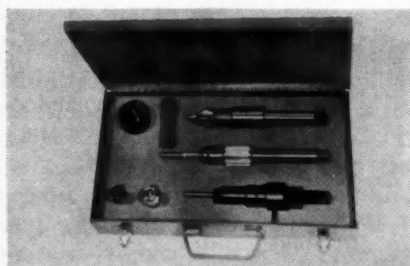


P3. Shop Press

Dake Engine Co., Grand Haven, Mich., has announced a new electric-hydraulic shop press. One feature is the rapid ram approach which eliminates the use of a hard wheel. When the control knob is turned, the ram advances at high speed until it comes in contact with the work, then automatically changes to the power stroke. Speed of the ram is completely variable from zero to maximum under fingertip control by the operator. The knob automatically turns to "Off" when the hand is removed.

P4. Injector Tube Kit

Bacharach Industrial Instrument Co., Pittsburgh, Pa., has added an injector tube replacer kit to its line of General Motors Series 71 tools. Kit features a newly developed tool for removing injector tube from cylinder in one simple operation. The tool incorporates a gripping device having sharp, slip-proof teeth which, when expanded by tightening a screw drive, bite into the internal wall of the injector tube, and the injector tube may be pulled out of the cylinder head simply by turning the drive screw which projects from the top of the tool. The kit contains six tools which perform all factory-recommended operations.



P5. Engine Wear Meter

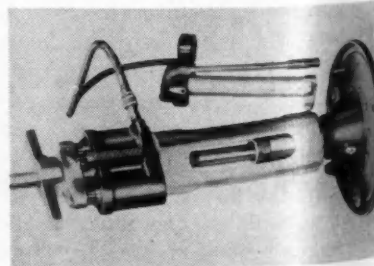
The Gerin Corp., Avon, N. J., has announced a new engine wear meter. It is a gage permanently attached to any engine and claims to warn the operator when there is fuel dilution, water or antifreeze leakage, running on dead filters, wrong grade make-up oil and the like. The meter responds to any increase or decrease in viscosity.

P6. Steel Shelving

The Frick-Gallagher Mfg. Co., Wellston, Ohio, has announced a new "Klip-Bilt" boltless steel shelving. All fastening is with clips, easy to install by hand. Clips can be readily removed to permit easy rearrangement or disassembly of shelving.

P7. Axle Puller

Owatonna Tool Co., Owatonna, Minn., announces a new 50-ton hydraulic puller to remove or install truck axle tubes and sleeves. Should the axle tube be broken, an adaptor may be welded to the end of the tube which is then pulled without disassembling the differential. The 50-ton hydraulic unit is interchangeable with other OTC pullers and adaptors and may be used as a portable power unit in the field or in the shop.



P8. Bottle

Hoist Division, Portland, grab to be used its "Pacific" its power from tery. The new



various sizes bottled gas attachment now grab for use hoist has a ca operated by r trol. Power i raise the load

P9. Tire S

George Fin Fork, Utah, a p Vayor," a p With a 32 ft c of 320 tires c a floor space

P10. Fifth

Dayton St ton, Ohio, is wheel featur sion bushing bushings and the function pads. The m the new type wear of meta greasing, and loading positi under pressur is one-man o 36 in. wide.



P8. Bottle Hoist Grab

Hoist Division, Burtchae Heating Co., Portland, Ore., is making a bottle grab to be used in conjunction with its "Pacific" hoist. The hoist derives its power from the truck storage battery. The new bottle grab is made in



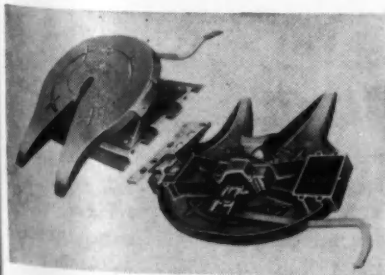
various sizes for different kinds of bottled gas cylinders. Another attachment now available is a barrel grab for use on steel drums. The hoist has a capacity of 1000 lb and is operated by remote push button control. Power is required to lower or raise the load.

P9. Tire Storage Rack

George Finney & Sons, American Fork, Utah, has announced a "Fin-Vayor," a power stacker for tires. With a 32 ft construction a maximum of 320 tires can be stored occupying a floor space of only 73 sq ft.

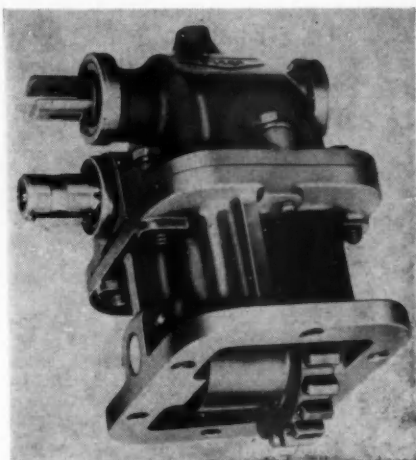
P10. Fifth Wheel

Dayton Steel Foundry Co., Dayton, Ohio, is producing a new fifth wheel featuring a rubber compression bushing that replaces metal bushings and rocker pins and serves the function of the shock eliminator pads. The manufacturer claims that the new type bushing eliminates the wear of metal bushings, requires no greasing, and returns the base to loading position and keeps it there under pressure. The new fifth wheel is one-man operated. Base is a full 36 in. wide.



P11. Power Take-Off

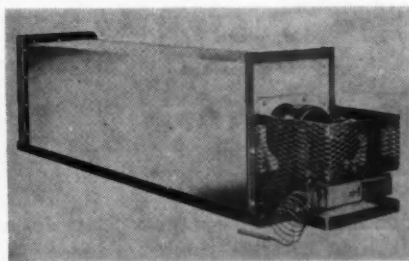
Dana Corp., Toledo, Ohio, is marketing a new medium duty two-gear single speed "Spicer" power take-off adaptable to applications such as pump operations, pulling cables, operating machinery and generators, ordinary dump body work, and other intermittent operation jobs. Two models are available: Model Nos. FA and FB. A feature of the former is elimination of case interference with



the output shaft. Model No. FA features normal shaft speed. Model No. FB features low shaft speed, and is particularly desirable for pump operations.

P12. Reefer Unit

Foster-Built Bunkers, Inc., Chicago, offers a new "Frigi-Matic" dry ice reefer unit for trucks with thermostatic temperature regulation. The new, automatically controlled bunker maintains constant temperatures, with a range from zero to 70 deg F and is claimed by the manufacturer to effect savings in dry ice consumption. The new Frigi-Matic has 200-lb dry ice capacity. Main body of the bunker has a two-inch false bottom which acts as a refrigerating air duct, and the dry ice chills the top metal plate of the air duct. A low amperage sirocco-type fan forces the air along the length of the chilled metal plate, effectively lowering the temperature of the air. Chilled air is then circulated through the body of the truck.



P13. Truck Crane

Hoisters, Inc., Kansas City, Mo., has announced a new Model No. 1000 electric "Hoist-O-Matic" truck crane. "Push button control" lets one man do the work. Operated anywhere within a radius of 8 ft from the crane, loads up to 1000 lb can be handled, stopping it at any height instantaneously with



its automatic braking. The four ft boom of the crane swings 360 deg. The crane is 6 ft high. Complete power unit and crane requires only 18 x 23 in. of mounting surface. Installation requires drilling of only five holes and connection of the electric cables to the truck battery.

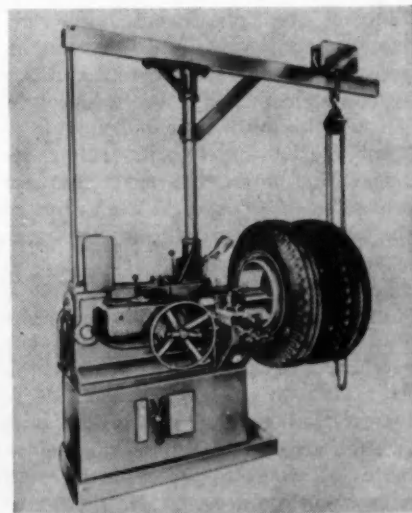
P14. Adjustable Wrench

J. H. Williams & Co., Buffalo, N. Y., announces a new self-locking, adjustable wrench. It offers rapid adjustment, positive lock.

P15. Brake Drum Lathe

Van Norman Co., Springfield, Mass., is introducing a new model "Speedy-Brute" brake drum lathe, No. 404. New machine takes biggest and heaviest drum and tire assemblies. Load compensator provides ample support

(TURN TO NEXT PAGE, PLEASE)



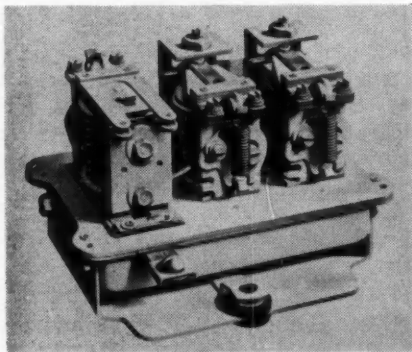
New Product Descriptions

Continued from Page 89

for the heaviest assemblies to assure straight and round drums. Dustless grinder attachment centrifuses coolant through pores of grinding wheel, controls wheel loading to eliminate dust and speed up grinding. New feed control provides fine, medium, fast and super-fast feeds, gives a range of 20 to 100 rpm.

P16. Voltage Regulator

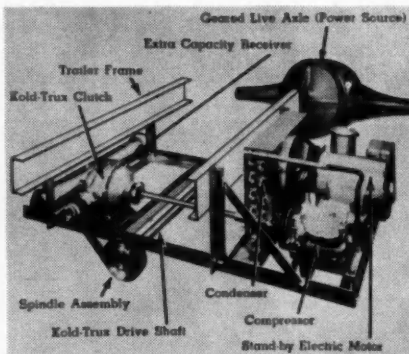
Standard Motor Products, Inc., Long Island City, N. Y., announces a new heavy-duty voltage regulator with four features. First, "king size"



parts give stability of performance and extra miles of life. Second, simple accurate adjustment is by means of eccentric cams and micrometer spring tension settings at a turn of the screwdriver. Third, two contacts on cutout arm ease current burden which minimizes contact burning and lengthens regulator life. Fourth, covered bottom protects vital resistance units from damage.

P17. Live Axle Reefer

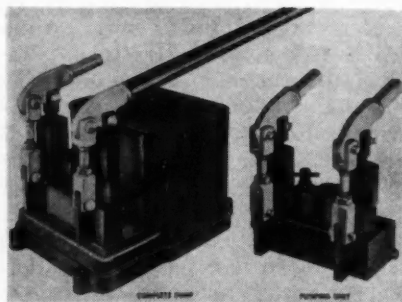
Kold-Hold Division, Tranter Mfg., Lansing, Mich., is introducing a completely automatic and thermostatically controlled trailer refrigeration system operated off a live trailer axle. An addition to the Kold-Trux line of "Mobilmatic" truck and trailer refrigeration units, the system is not connected in any way to the engine of the tractor. A geared axle (the same type of axle used for driving a 4-wheel truck) is substituted for a standard axle on the trailer. As the trailer is pulled by the tractor, the rotation of the wheels rotates the live axle. This motion of the axle is transmitted to the condensing unit through a patented clutch which eliminates all shock to the engine, transmission or compressor. It will main-



tain any specified temperature from -20 to 50 deg throughout the entire trip. Kold-Trux trailer units are tire trip.

P18. Hydraulic Pump

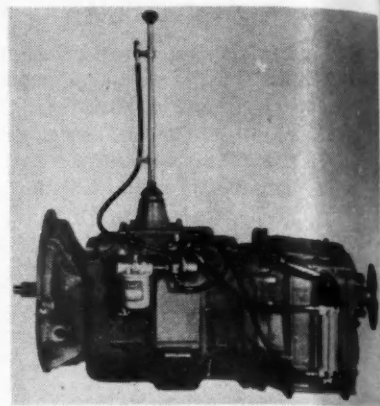
Owatonna Tool Co., Owatonna, Minn., has added a two-speed, hand-operated hydraulic pump to the line of "OTC" hydraulic equipment. This unit has two separate pumping units which permit a variation in the operating speed of the ram, jack or other pieces of equipment being activated. One piston is $\frac{3}{4}$ -in. in diameter and delivers 3000 psi while the other piston is $\frac{1}{2}$ -in. in diameter and delivers 10,000 psi to provide maximum power with lesser speed at the ram. The



pumping unit may be purchased separately for mounting on specialized equipment. The pumping unit has three high pressure outlets and one low pressure outlet. An overload valve is a built-in feature.

P19. Ratchet Head

J. H. Williams & Co., Buffalo, N. Y., has added a $\frac{1}{4}$ in. square drive heavy-duty ratchet head to their detachable socket line. Drop-forged from selected alloy steel and fully heat-treated for added strength and finished in satin chrome-plate, its heavy duty ratchet gear has 24 teeth for quicker, smoother action. Shift lever on head reverses ratchet action.

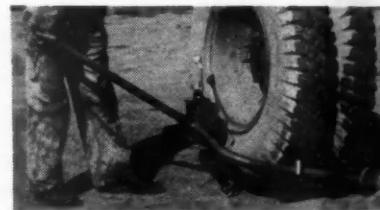


P20. Air Shift Control

Fuller Mfg. Co., Kalamazoo, Mich., is producing a new all-air range shift control system for Models R-95 and R-950-C 10-speed semi-automatic "Roadranger" transmissions. The new all-air shift is simple and functional, consisting of an air valve with controlling cable.

P21. Wheel Dolly

Cam Tool Co., Oakland, Cal., has added to its line a "Y" Dolly for single, dual wheels and brakedrum



assemblies. Hinged rollers assume angle of axle on jack and prevent binding. The T-handle gives complete control of load and maneuvering. Just a few turns of the ball-bearing-equipped caster-jack lifts and lowers the heaviest dual while the 5-in. ball bearing rubber wheels allow the entire tubular steel assembly to roll easily and safely.

P22. Tubeless Tire Tool

Ken-Tool Mfg. Co., Akron, Ohio, announces a new tool for tubeless tire servicing, the "Ken-Speed" bead



expander. It handles tire sizes from 5.90 x 15 to 8.90 x 15. It consists of a fast-acting, jack-type lever with a special tempered steel band that can

(TURN TO PAGE 172, PLEASE)

COMMERCIAL CAR JOURNAL, May, 1955

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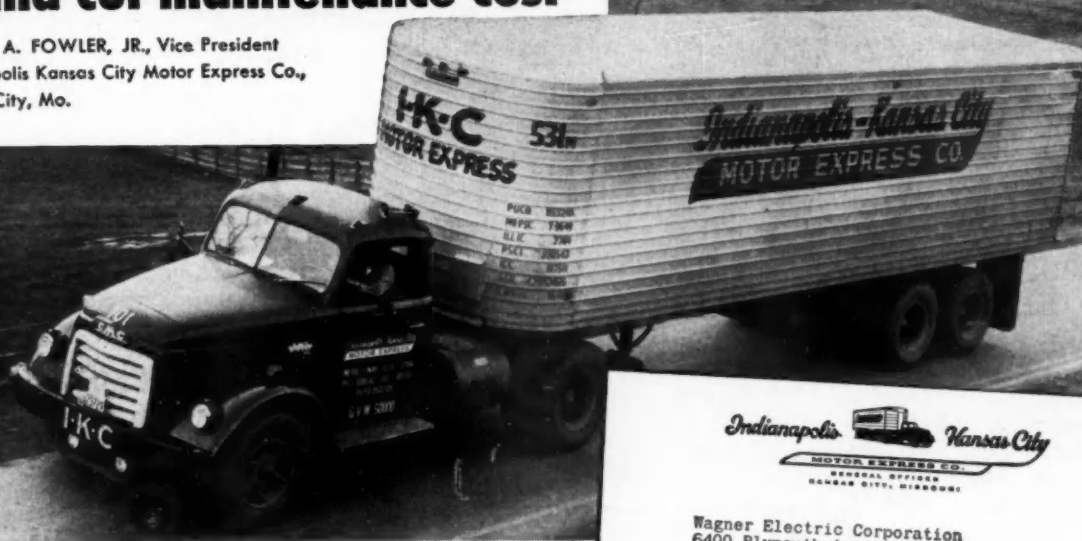
TACHOGRAM

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"Tachographs

...help us safeguard cargo
and cut maintenance cost"

says: A. A. FOWLER, JR., Vice President
Indianapolis Kansas City Motor Express Co.,
Kansas City, Mo.



Wagner Electric Corporation
6400 Plymouth Avenue
Saint Louis 14, Missouri

Gentlemen:

"Ship I.K.C.—Straight and to the Point" is the byword that reflects the trucking service we provide customers from Virginia to Kansas. It is a service in which every phase of our hauling operation is given exacting care—from proper preventive maintenance for all equipment to the carrying out of maximum safety standards.

Tachographs have helped play an important role in our operation policy. In the six years they have been in our service they have furnished us an analysis of over-all performance and aided in determining schedules. Tachographs help us safeguard cargo and cut maintenance cost. Also they have been helpful in protecting our drivers against unjust prosecution since the charts have been accepted as legal evidence in court in establishing the true rate of speed.

We are most pleased with the service Tachographs are providing us.

Very truly yours,

A. A. Fowler, Jr.
A. A. Fowler, Jr.
Vice President

Take the word of fleet operators like Mr. A. A. Fowler of I.K.C. (and the hundreds like him) who find it good business to install and use TACHOGRAPHS.

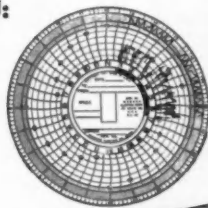
Trip after trip, these men depend on TACHOGRAPHS to measure the performance of both trucks and drivers in order to make their trucking operations safer, more efficient, more economical.

The Tachograph is a recording speedometer. From a wax chart that is inserted into the TACHOGRAPH at the start of a run, you get a complete and permanent record of an entire trip. It's your best bet for helping you to protect your drivers, recognize good driver habits, reduce accidents and maintenance costs and keep your customers' cargoes on schedule.

For full details, send the coupon provided below for your free copy of Wagner Bulletin SU-3.

TACHOGRAPHS TELL YOU:

- When engine started
- How long it idled
- When vehicle was in motion
- How fast it traveled
- When it stopped—and for how long



Wagner Electric Corporation

6476 PLYMOUTH AVE., ST. LOUIS 14, MO.

Please send a copy of Bulletin SU-3.

Name and Position _____

Company _____

Address _____

City _____ State _____

We operate _____ Vehicles
(NUMBER)

LOCKHEED HYDRAULIC BRAKE PARTS and FLUID • NoRoL • CoMoX BRAKE LINING • AIR BRAKES • TACHOGRAPHS • ELECTRIC MOTORS • TRANSFORMERS • INDUSTRIAL CRANE BRIDGE BRAKES

COMMERCIAL CAR JOURNAL, May, 1955

Fleetman's LIBRARY

New literature on fleet maintenance, safety and operation
for your files—Many are free (Use postcard on page 84)

1954 Safety Statistics

Here, just published, is The Travelers Insurance Companies' 1955 book of street and highway accident data, "Misguided Missiles," comparing 1954's experience with 1953. This year's booklet is well illustrated with humorous safety cartoons done by the well-known cartoonist, Chon Day. Presented in this handy digest are analyses of accidents by driver actions, driver ages, operating experience of drivers, mechanical condition of vehicles, road and weather conditions, day of week and time of day and direction of travel. Circle L 1 on the postcard on page 88 for your free copy.

Dynamometer Test Procedure

Complete dynamometer diagnosis and adjustment procedure for Cummins diesel-powered trucks has been published jointly by the service training divisions of Clayton Mfg. Co. and Cummins Engine Co. Purpose of the comprehensive procedure is to present latest developments in diesel engine service and repair. It is divided into three principal sections—checking road horsepower, checking performance complaints, making routine inspections. Tips are included for getting maximum horsepower and minimum fuel consumption. It is free to truck shop service managers. To get a copy circle L 2 on the postcard on page 88.

Axle Lubrication Manual

Special feature of this 1955 revision of Timken-Detroit's Field Maintenance Manual No. 1, "Lubrication," is a new section headed "Recommended Lubrication Practices." It summarizes some important lube maintenance points for longer axle life based on field experience. Included in the guide is a complete discussion of various lubricants, additives and lube properties. Lube specifications, capacities and lubrication charts for Timken-Detroit axle units are given in full detail. Circle L 3 on the postcard on page 88 for your free copy.

Aluminum Body Repair Guide

From J. B. E. Olson Corp. comes this handy, 8-page guide for repairing multi-stop aluminum bodies. It explains procedure for knocking out dents, use of a torch, how to remove and replace rivets, welding and patching. It gives step-by-step procedure for replacing front quarter panels, radiator removal, repairing front quarter skins, servicing

side panels, skirts and rub-rails, and repair of rear quarter panels. You'll also find data on body painting, waterproofing and dustproofing seams, protection against acids, road grit and abrasion. For a free copy, circle L 4 on the postcard on page 88.

Lubricant Specifications

Says the introduction of this booklet available from the Texas Co., "This article attempts to discuss some of the pitfalls and fallacies of restrictive or non-standard purchase specifications . . . too often . . . applied to petroleum products." From the text, the fleetman will get a lot of worthwhile information for use when purchasing lubricants. Included are charts listing (1) SAE viscosity values for crankcase oils, (2) SAE viscosity values for transmission and axle units, and (3) National Lubricating Grease Institute grease classification. Circle L 5 on the postcard on page 88 for your free copy.

Highway Transportation Booklet

As a fleet operator, you know highway transportation is important. You also know a lot of people who don't think highway transportation is important to their business. This pocket-size 30-page booklet presents the facts both statistically and with examples on why highway transportation is important to everybody. It spells out the answer for farms, workers, consumers, families, travelers, education, public health, public safety, public information, national defense, industry, mail, construction, railroads, religion, banking and finance, merchants, entertainment, sports, utilities, cities and towns. The booklet, second edition of "The Highway Transportation Story in Facts," is published by the National Highway Users Conference. For your free copy, and information on quantity orders, circle L 6 on the postcard on page 88.

Welding Manual

Published by the U. S. Government Printing Office, this 208-page illustrated manual on welding is a basic instruction text designed for on-the-job training. In addition to four chapters on steel welding, there are chapters on inspections and tests, non-ferrous metals, surfacing and metalizing. For a copy, write Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. Ask for Catalog No. I 27.19:W 45/2. The price is \$1.75.
(TURN TO PAGE 150, PLEASE)

YORK-HOOVER

COMMERCIAL TRUCK BODIES

**Lightweight
Construction**

**Rugged
Durability**

**Cost-Saving
Efficiency**



YEAR AFTER YEAR

For 63 years, York-Hoover has maintained a consistent record of quality, performance, and customer satisfaction.

It has been this record that enables us to gain new customers and retain and serve old customers year after year.

The Railway Express Agency has been using York-Hoover Bodies for many years, and we are again happy to have a part in its present extensive and progressive vehicle program.

Should you have a tough body transportation problem, why not contact us and obtain the benefit of our experience?

**OVER
60 YEARS
OF SERVICE
TO THE
TRANSPORTATION
INDUSTRY**

York-Hoover specializes in custom built Truck Bodies in steel and aluminum for every transportation need.

**YORK-HOOVER
TRUCK BODIES**

YORK-HOOVER CORPORATION
BODY DIVISION
YORK, PENNSYLVANIA



Above. Jim Nichols discusses IMTA's advertising program with a local group. Top, left. The Hoosier Happenings column appears in newspapers. Ad is designed to inform and interest

The Hoosier Touch in Public Relations

The Indiana Motor Truck Association steps high and swings hard when it comes to disseminating industry information to the man in the street

Headquarters. This old mansion provides impressive facilities—from board rooms and offices to cheerful kitchen



▼ DID YOU KNOW THAT:

1. A 6½-ton stake body for-hire truck pays \$155 per year for using Indiana's roads? That a for-hire 5-axle tractor trailer truck pays \$1,776—or as much as 26 passenger cars for use of this state's highways?
2. That 98 per cent of all hogs in Indiana leave home by truck?
3. That farmers in Indiana own 60,000 trucks or one quarter of the state's registration?

4. That more than 65 per cent of Indiana's local post offices now receive and ship by truck?

5. That 830 towns (including four county seats) in Indiana are not served by any transportation system other than highways?

6. That trucks keep more than 167,000 Indiana people working? That one out of every six pay checks in the state is paid by the trucking industry?

You probably do know this if you live in Indiana, or even if you have passed through the state recently. For the Indiana Motor Truck Association is seeing to it that you are properly informed of the importance of trucks in the state's economy. This "Hoosier Touch" is a down to earth campaign aimed at the farmer, the educator, the legislator, the factory owner, in fact just about all segments of Indiana life. Headed by genial Jim Nichols, the association has set out to show the citizens why they live with commercial vehicles.

The association is currently telling this story through a series of informative ads in 38 urban newspapers, in 129 rural newspapers and in four farm magazines in the state. They are out to sell the trucking industry, and they are doing it on a high, instructive

(TURN TO PAGE 122, PLEASE)

Bendix Products Division

A good reliable source

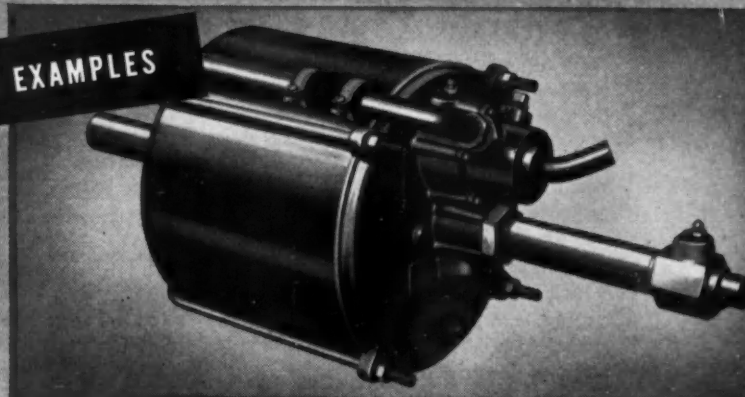
FOR AUTOMOTIVE EQUIPMENT

From four wheel brakes to the latest development in power braking, Bendix Products Division has demonstrated its unique ability not only to keep pace but *actually to anticipate* the industry's requirements for the latest and most efficient in automotive components.

TYPICAL EXAMPLES



BENDIX LINKAGE TYPE POWER STEERING—Because Bendix* Power Steering is of the linkage type, manufacturers find it especially adaptable for production line installation without extensive engineering changes. Manufacturers can now meet the increasing demand for power steering more efficiently and economically with Bendix Linkage Type Power Steering.



BENDIX HYDROVAC POWER BRAKE—With over four million in use, the Bendix Hydrovac* is the world's most widely used power brake for commercial vehicles. This overwhelming preference for Hydrovac is a result of sound engineering design, exceptional performance, low original cost and minimum service upkeep. Make the industry's choice your choice.

*REG. U. S. PAT. OFF.

POWER BRAKES • POWER STEERING • POWER BRAKING • CONSTANT VELOCITY UNIVERSAL JOINTS • HYDRAULIC REMOTE CONTROLS

BENDIX PRODUCTS SOUTH BEND INDIANA
DIVISION

Export Sales: Bendix International Division, 205 East 42nd Street, New York 17, N. Y.

Bendix
AVIATION CORPORATION

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, May, 1955

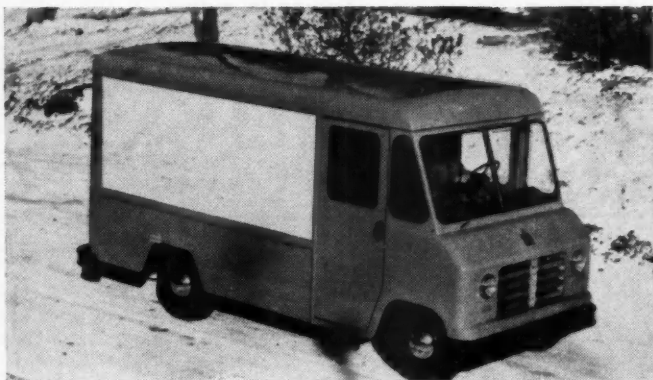


Alaska Adds 12 CBE Kenworths

ALASKA Freight Lines has added 12 new weight-saving Kenworth "Cab-Beside-Engine" trucks to its northern fleet. The new CBE's are three-axle dual drive units with 235-hp, turbo-supercharged diesel engines.

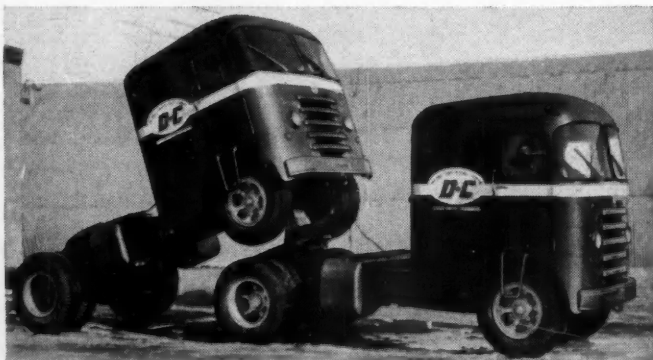
IHC's Light Weights Use Plastic

NEWLY DESIGNED, lightweight Metro-Lite body of increased capacity, will be offered on all nine models of International Harvester's RM-120, RM-150, and RM-160 series multi-stop delivery trucks. Body is a composite of lightweight materials—fiber-glass reinforced plastic, aluminum alloy, and magnesium alloy. It will be available in lengths of 9 ft, 6 in., 10 ft 6 in., and 12 ft 7 in., and with body capacities of 349, 387, and 465 cu ft.



Denver Chicago Goes Sleeper

THESE TRACTORS, equipped with Model No. FSCL Fageol Highway Sleeper Cabs, manufactured by Twin Coach Company, Kent, Ohio, are for delivery to Denver Chicago Trucking Co. Delivery of 90 of these units completes the conversion of Denver Chicago's entire fleet to sleeper type units. Denver Chicago offers 120 hour trans-continental sleeper service. Designed for operation with 35 ft trailers within a 45-ft length limit, the sleeper cab is fitted with a full length 26 in. wide bunk, yet bumper-to-back-of-cab distance is only 85% in.



How to Mask Your Truck

Preparatory to Painting

By Guy Straub,
Permacel Tape Corp.

In the last few years masking papers have been developed which speed the painting operation. Used with quick-stick tapes, these tough lacquer and paint resisting papers provide durability and flexibility that cannot be acquired with any other methods. Here is how they are used:



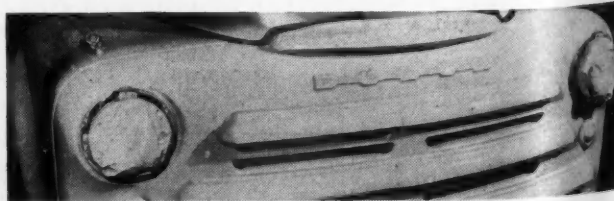
A 3-in. taped apron is applied to the outer edge of the wheel rim to prevent overspray. Side panels to be protected are masked with 12-in. strips. Here too, side aprons prevent paint overspray. Wide strips are applied to the grille con-



tours and held down with 1/2-in. tape. Separate aprons are used for windows. Tape is applied diagonally across the window, and bottom apron is folded under first—then the top over the bottom. For headlights a 6 or 9-in. apron is



applied from the bottom up. Length of the outer circumference of the headlight should be estimated first and extra tape allowed for overlap. An apron conforming to the contour of the fender is applied and short strips of 1/2-in. tape are added at one foot intervals to the outside edges. These simple techniques not only save time; they guarantee better paint jobs as well.

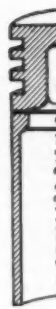


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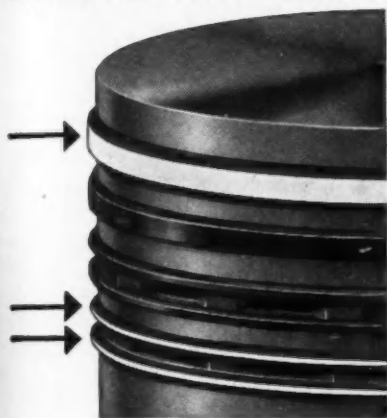


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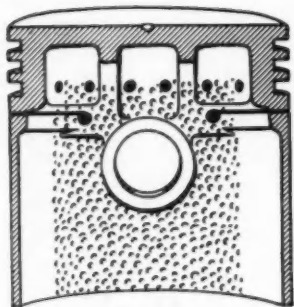
RINGS

Smoother performance

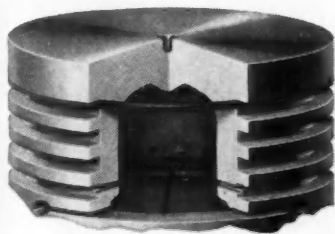
EVERY RE-RING JOB
DESERVES ALL THREE...



1. KromeX Ring Sets are the most economical, measured by miles. Factory-seated for instant oil control—chrome-faced top ring and oil ring side rails for longest wear.



2. Sealed Power SUPER-SIZER is the world's best resizing method, increases resiliency and outward tension on thrust faces, expands skirt to original close fit, leaves piston skirt surface smooth.



3. Sealed Power GI-60 Groove Insert is the only dependable, economical method of restoring top groove to original size and protecting against future wear.



Sealed Power KromeX

PISTON RING SETS...

assure your engine

- smoother performance
- faster pick-up
- double ring life
- maximum oil economy
- positive lubrication

assure YOURSELF

- lower cost per mile
- more miles of good service
- no come-backs

SEALED POWER CORPORATION • MUSKEGON, MICHIGAN

Sealed Power Piston Rings

BEST FOR RE-RING!

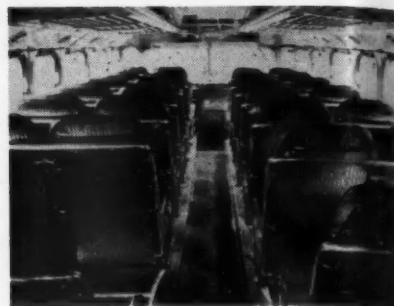
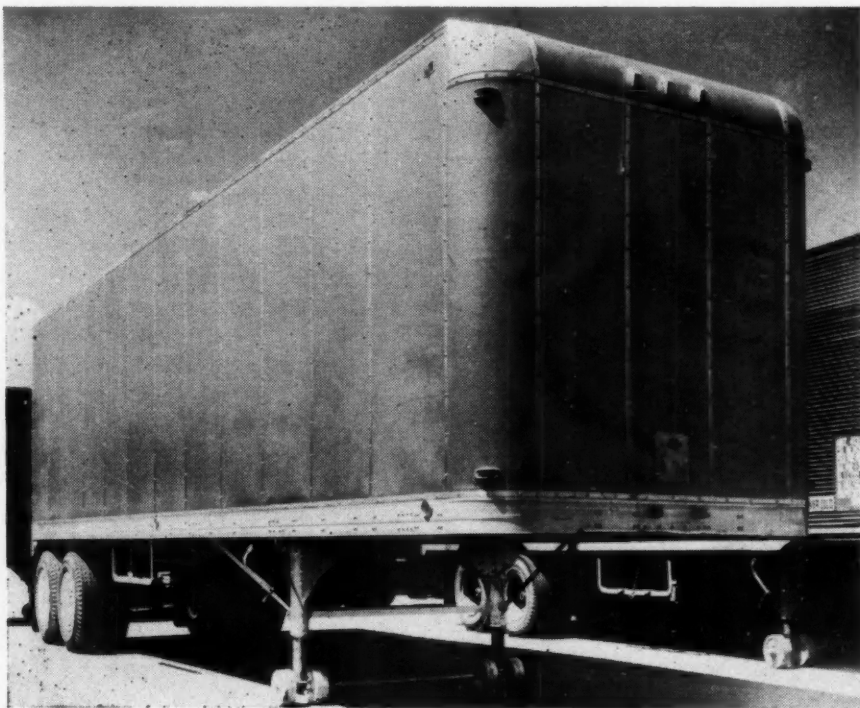
BEST FOR RE-BORE!

RINGS • PISTONS • PINS • SLEEVES • VALVES • WATER PUMPS

Light Weight Trailers Use "Rigid-Tex"

UNUSUAL story recently reported concerns the application of stainless "RIGID-tex Metals" in the truck industry, is the building of a trailer 35 ft long by 8 ft wide with a total volume of 2100 cu ft, yet keeping the weight equal to or lighter than

any all-aluminum trailer now in production. This has been accomplished by Lindsay Structure, Inc., Skokie, Ill. The trailer has no underframe or supporting beams. It is of the frameless type and the skin carries the load. By utilizing the strength of the



26 gage stainless "RIGID-tex Metal" in the side wall panels combined with aluminum "LS" framing Lindsay structure was able to produce a stainless steel trailer lighter in weight than aluminum trailers. In addition to increasing the payload by contributing to the high strength-low weight ratio of this trailer, "RIGID-tex Metal" is said to give an outside trailer surface that is scratch and mar resistant.

"RIGID-tex Metal" is also used to reduce maintenance on backs of bus seats. Prime considerations in using "RIGID-tex Metal" are economy and ease of installation. In the picture below, 2-FL pattern was used in .018 in. T430 stainless steel with the No. 2 Strip Finish for replacing the passenger-seat backs. Paneling over the windows and around the ceiling was replaced with .012 in. and .020 in. aluminum "RIGID-tex Metal" in the 5-WL pattern.

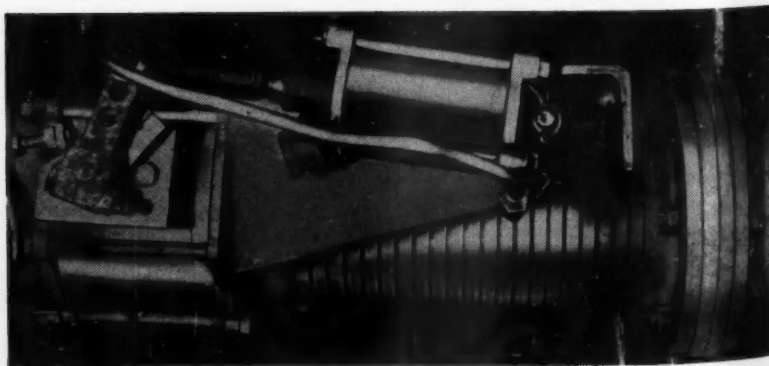
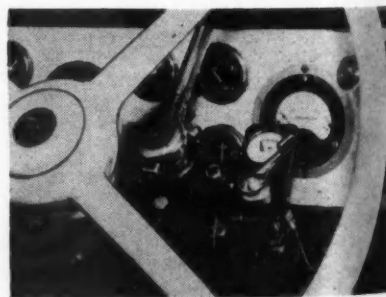
New System Uses Engine Compression for Braking

BRAKING of heavy trucks by motor compression has been recently developed by the Power Brake Equipment Co., Portland, Ore. Basically, the unit converts the truck engine into a low pressure air compressor which slows down and holds back the vehicle. The system can be installed in both gasoline and diesel powered trucks.

The key to the system, compression, is achieved by the installation of a special port between the carburetor and the intake manifold (in gasoline engines), and the placement of a butterfly valve between the manifold and the muffler, which restricts the escape of the exhaust from the manifold. Thus, on the first downward stroke of the piston (the inlet valve being open and the exhaust valve closed) pure air is drawn in through the port. On the return stroke (both valves closed) the air is compressed. On the next downward stroke, the air is decompressed (throttle at idle). On the

next return stroke the exhaust valve is open, but the butterfly valve restricts the exhaust's escape. Each succeeding exhaust stroke builds up pressure.

Operation of the system is controlled by the driver with a convenient hand valve on the steering post, together with a gage showing manifold pressure. The pressure is instantly released with the foot throttle.



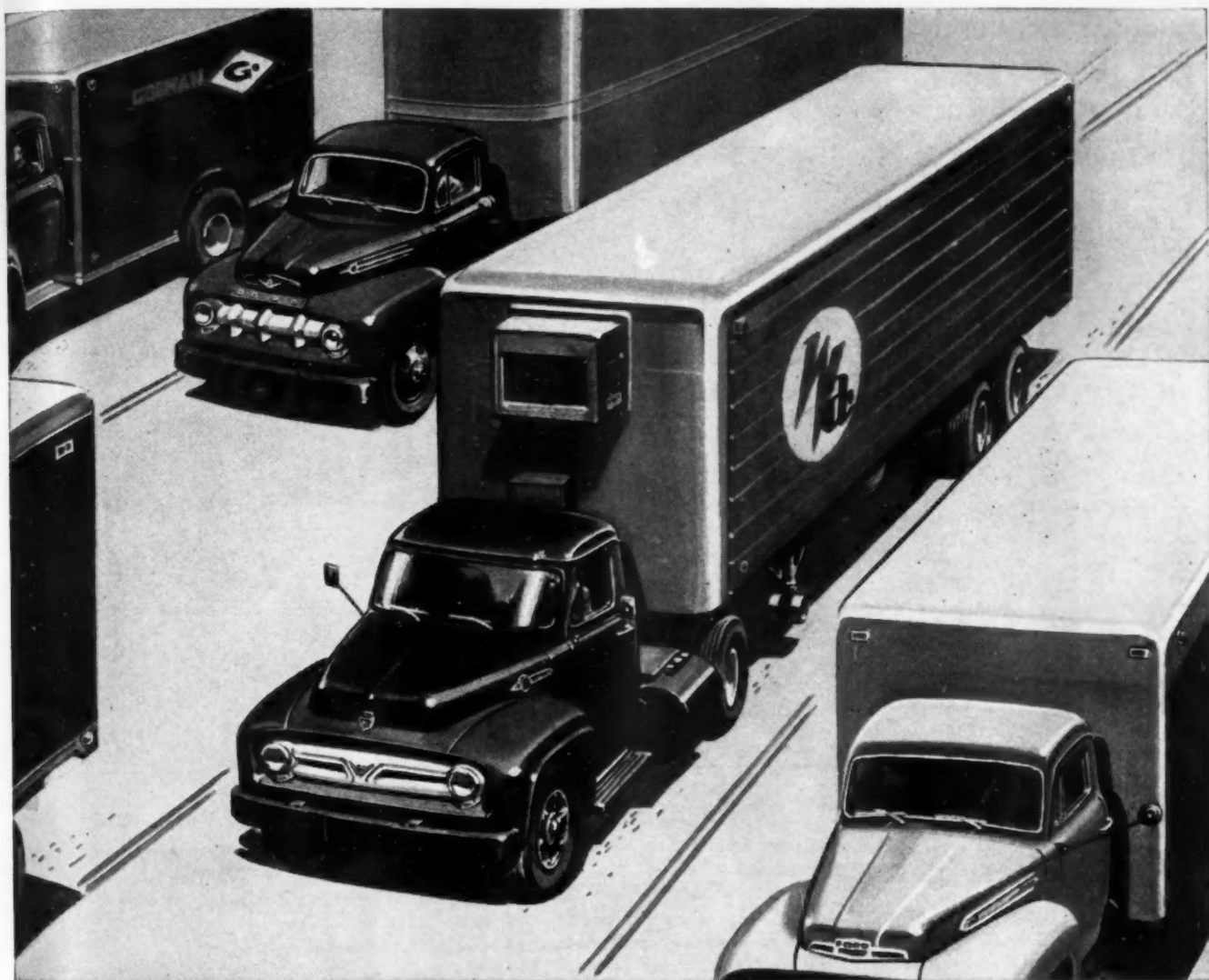
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Keep your fleet going strong

... with Genuine Ford Parts. They're made right to really last longer in your Fords!

One of the most profitable ways to keep your fleet of Fords out of the shop and on the road where the fleet profits are . . . is to specify Genuine Ford Parts when replacements are called for. Track-tested at Ford proving grounds *before* being approved for manufacture, they're made right to keep your fleet healthy and rolling . . . longer!

Genuine Ford Parts are engineered to be exact replacements for the original parts in your Fords. Mechanics find them easy to install . . . and they're designed to cut costly "down time" to a minimum.

Keep *your* fleet of Fords out of the shop, and going strong with Genuine Ford Parts . . . easily available through the nearest of 6,400 conveniently situated Authorized Ford Dealers.



Keep your fleet on its feet

Federal Describes Its 1955 "Golden Eagle" Line

NEW 1955 "Golden Eagle" line of trucks has been announced by Federal Truck. Special emphasis has been placed on newly-designed models in the 30,000 to 60,000-lb GVW class.

Cab has been widened to comfortably accommodate three big people, and the seat has been raised to provide more leg room. The driver's seat is individually mounted on hydraulic shock absorbers to reduce road shock and decrease driver fatigue. Cabs are double insulated for extra protection against weather and noise.

The new one-piece, full width, bent safety glass windshield has increased visibility 60 per cent and eliminated distortion. Another change in the 1955 model is the use of side ventilator windows, which combined with the fresh air heater and defroster system provide thermostatically controlled all-weather driving comfort.

A heavier front axle is being used in the 1955 models. The axle has been



moved back approximately six inches to give better weight distribution.

Steering gear linkage has been improved on the 1955 Federal truck and, with the addition of a larger steering wheel, gives these trucks the same ease of handling formerly available only in lighter weight models.

Trucks will be available with either Continental, Hercules or Cummins engines in a wide range of horsepower and cubic displacement. Both gasoline and diesel power are offered. The custom purchaser will also have his choice of Clark, Fuller or Spicer transmissions.

Great Dane Announces New Tandem Features

THE NEW Great Dane tandem, Model No. 4, has been bettered in appearance, ruggedness, and lightness of weight. The spring has been made longer and snag-proof. The adjustable torque rods now have the split clamp feature, retaining the extra length of thread used for positive safety and as a non-tampering feature. A new type upper spring plate for the U-bolts is of forged plate with integral rib and top leaf anti-displacement shroud.

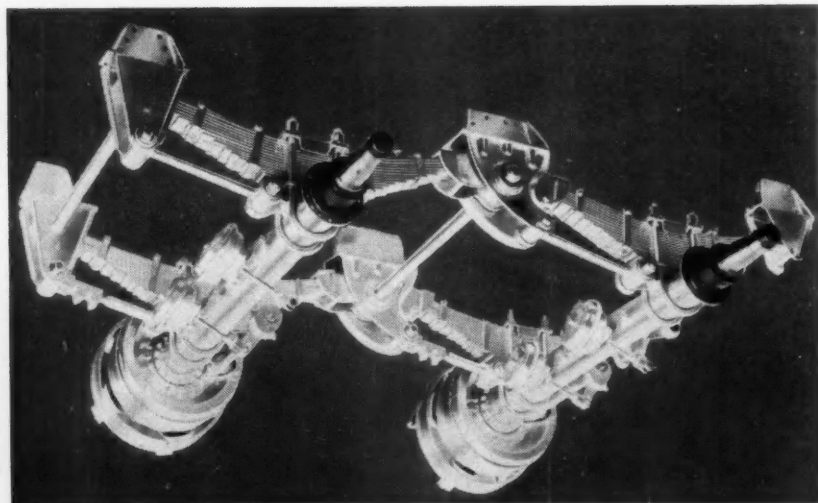
Greasing has been eliminated

through the use of bushings that give the tandem proper lubrication at all time.

The hangers have been lightened, while still retaining the same benefits which wrought fabricated steel gives to the user. 103 lb have been removed from the weight of the hangers alone.

With special die the sides of the hangers are produced from one piece of lighter plate, with all stiffeners and gussets an integral part of the plate.

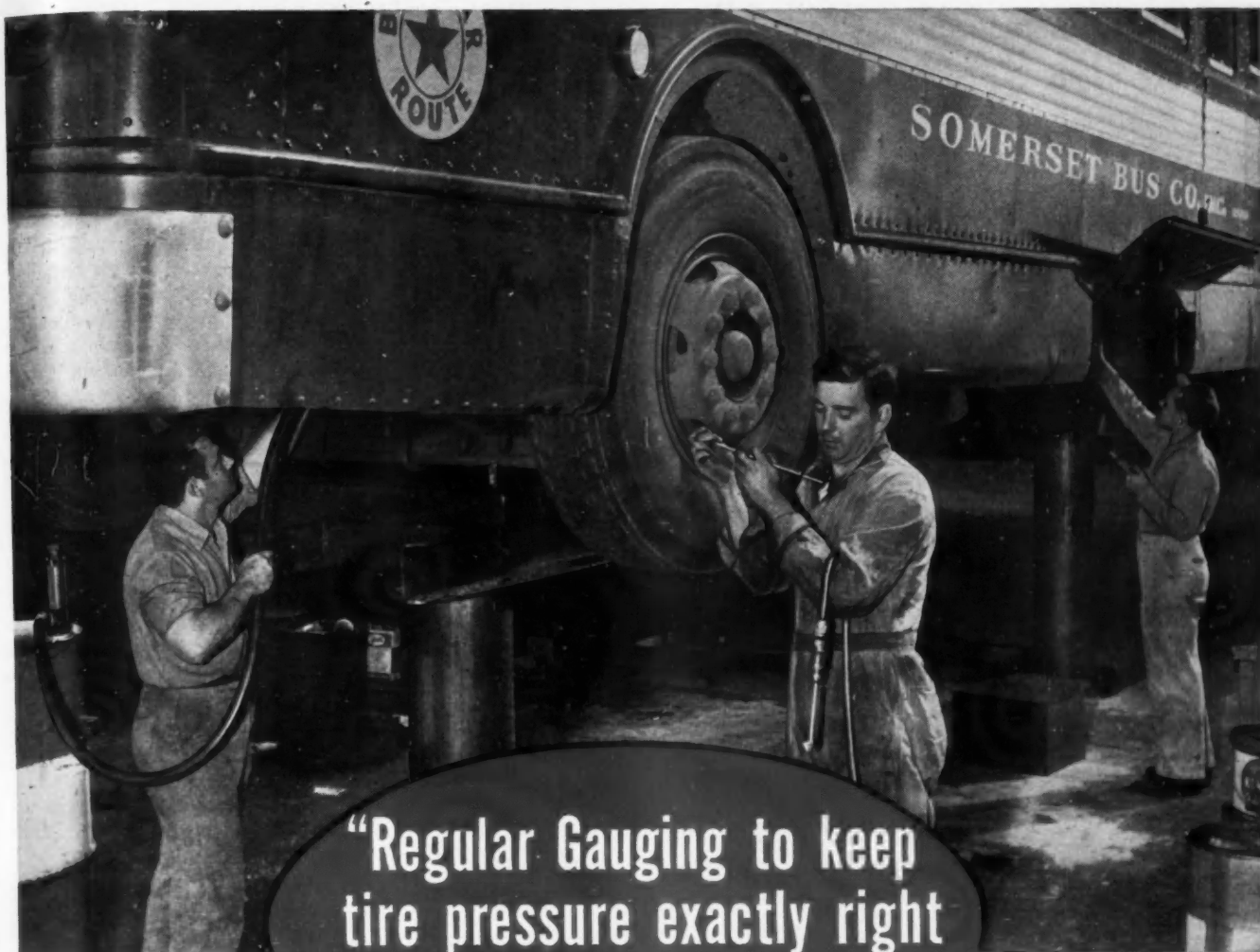
Great Dane has developed also a Model 3-U tandem, which is an under-slung tandem. The Model 3-U operates with the same anti-torque features, but is designed to be used with the drop as much as 21 in.



Plastic Bottle Body



Completion of two plastic milk bottle truck bodies for the Carnation Milk Co., Los Angeles, Cal., is announced by Strick Co., Philadelphia. Made from fiber glass reinforced plastic, the body is the first to be made of only two halves (see lower picture). Since the color can be impregnated into the material, painting is unnecessary. Since the Carnation truck body is refrigerated, the insulating qualities of the plastic are expected to reduce refrigeration costs and maintenance to a minimum. Structural framing is molded into the outer skin.



**"Regular Gauging to keep
tire pressure exactly right
adds plenty to tire life"**

**This is what Harold Eick, Superintendent
of Maintenance, Somerset Bus Company, Inc.
Mountainside, N. J., says:**

"In addition to a 2000-mile tire check up, we gauge tires on all buses daily with a Schrader 7188BH dual foot service gauge.

"We also check for missing valve caps, worn valves or valve cores. These are replaced with Schrader Products exclusively."

Whether your fleet is big or small, your job is to keep it rolling, and to hold down costs. That's why it pays to follow a thorough tire valve maintenance program, and to use finest quality products. Specify Schrader when you order Tire Gauges, Tire Valves, Valve Caps and Cores, Valve Tools and all Airline Fittings.

Always certify all your gauging-inflating equipment with the 8106B Trutest Special Gauge, so you're sure all your gauges are right.

Schrader

REG. U. S. PAT. OFF.

FIRST NAME IN TIRE VALVES

FOR ORIGINAL EQUIPMENT AND REPLACEMENT

A. SCHRADER'S SON, Division of Scovill Manufacturing Company, Incorporated, 470 Vanderbilt Ave., Brooklyn 38, N. Y.

**7260 Duplex Valve
Converting Tool**

**7823R Truck and Bus
Convertible Tire Valve**

7188BH All-Purpose Service Gauge

8106B Trutest Special Gauge

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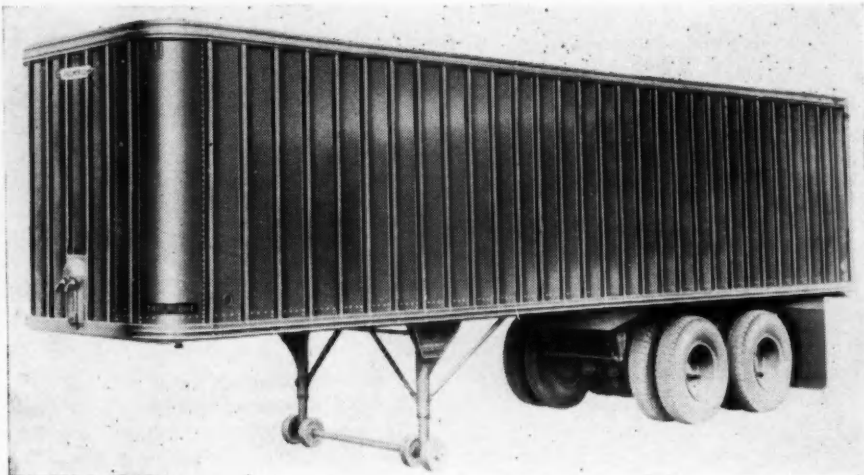
, May, 1955

Trailmobile Announces New "IP" Line

TRAILMOBILE'S new IP (for "Integral Post") trailers are "high cube," and lighter by nearly three-quarters-of-a-ton in the 35-ft class. Four new models make up the line—open and closed top vans, city delivery trailers, and grain and citrus units.

The IP (Integral Post) allsteel van weighs less than its opposite number in a 1954 model in the aluminum van class, and has a 20 per cent greater "cube." It's higher, wider and longer on the inside.

The "Integral Posts" are actually closed exterior posts, stamped as an integral part of the panels and closed by 44 spot welds when the panels are joined. "Integral Posts" give more strength to the sides than open-on-the-inside corrugations and are said not to belly out or damage as easily.



Maximum Load — East and West



A radically new idea in furniture-moving vehicles is now solving an old problem for Bekins Van Lines is using 16-ft trailers in long-distance transfers between Pacific Coast and Rocky Mountain areas. They are added behind a standard 32-ft semi-trailer, giving maximum load capacity and flexible operation within the 60-ft legal length limit on western highways.

Human Factors Studied In Harvard Safety Reports

RESULTS of an extensive research project aimed at discovering some of the less obvious or hidden causes of highway accidents are described in a series of four reports now available.

The project was conducted by the Department of Industrial Hygiene of the Harvard School of Public Health and focused its attention on design of equipment and the selection, health maintenance and operating practices of drivers as factors in accidents. The first two reports deal primarily with human engineering, while the last two are concerned with all aspects of highway safety in which human factors are involved.

The first report, "Human Body Size

and Capabilities in the Design and Operation of Vehicular Equipment" was developed primarily as a manual for designers of all types of vehicular equipment who are concerned with human limitations and capabilities.

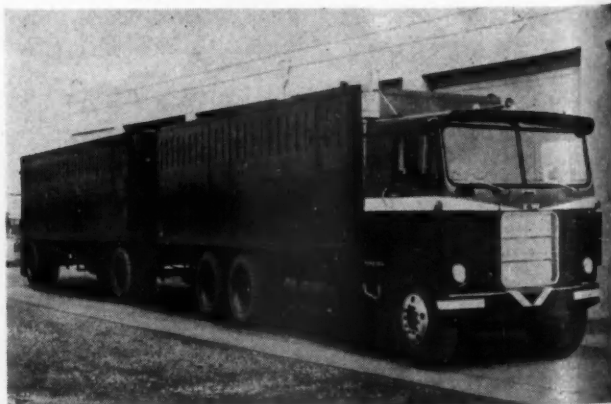
The second report, "Human Factors in the Design of Highway Transport Equipment: A Summary Report of Vehicle Evaluation," relates principles of human engineering to the evaluation of 12 current truck models. Each of the 12 vehicles is discussed under code numbers rather than by manufacturer's name.

The third report is in five sections. Part I gives a brief out-line of the importance of accidents in general and of highway accidents in particular. The various approaches for reducing accidents in the truck and bus industries are also presented. Other sections cover Driver Selection, Human Maintenance, Human Factors in Design of Equipment and Operating Procedures and Accidents.

The final report in the series is a review of the literature concerning human variables in highway accidents. Causes of accidents are interpreted in terms of the interrelationships between the driver, the vehicle, and operating conditions.

Copies of these four studies may be obtained from Dr. Ross A. McFarland, One Shattuck St., Boston 15, Mass.

New Western Sleeper Cab



Newest product of Kenworth is this COE-73 sleeper cab, measuring only 73 in. in length including its 26-in. sleeper section. Weight saved through the design is at least 650 lb. Available loading space can be increased to 51 ft when this sleeper cab is used as a dromedary with semi-trailer or with a full truck and trailer. When used with double bottoms, loading space is 48 ft.

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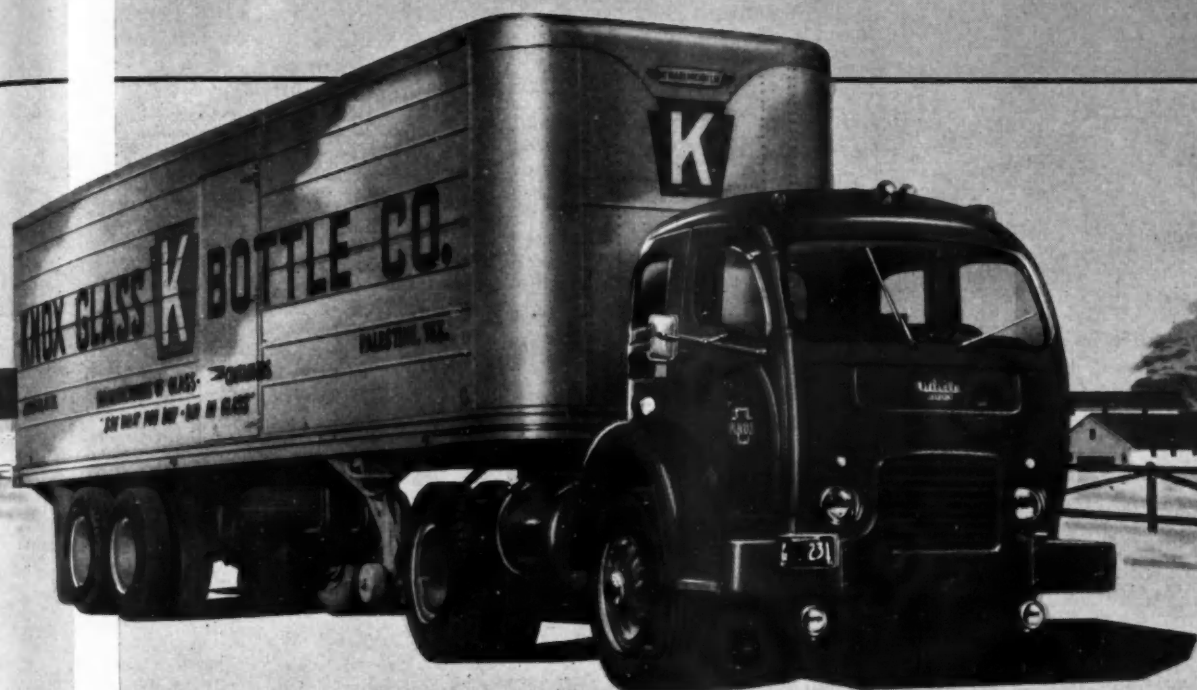
HE WHITE

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3000

Want "High Cube"... High Power... Or Both?

There is Only One MODERN Way

The WHITE 3000



YOU DON'T have to sacrifice payload to get truckpower.

You can get both... and be sure you are buying the most payload, the most efficient power on the road today... when you buy WHITE!

These new Whites, powered by the famous Mustang Engines, have a spectacular record on every kind of highway transport job. More power per pound engine weight! Higher compression ratio! Remarkable mileage even with substantially higher payloads!

Look into the new Whites... now! It will pay you in extra payload and economical transportation for years to come. See your White Representative!

THE WHITE MOTOR COMPANY • Cleveland 1, Ohio



For More Than
50 Years The Greatest
Name In Trucks



Drivers' Favorite, Too!

Knox Glass Bottle Co., Jackson, Miss., has a fleet of modern Whites that travels throughout the Mississippi river valley. Riding and driving ease win driver acclaim. Safety and visibility important, too!

First... in Highway Power and Payload

WHITE 3000 tractors haul 35 ft. square-nose "high cube" trailer within 45 ft. limit. Favorable weight distribution boosts payload even more.

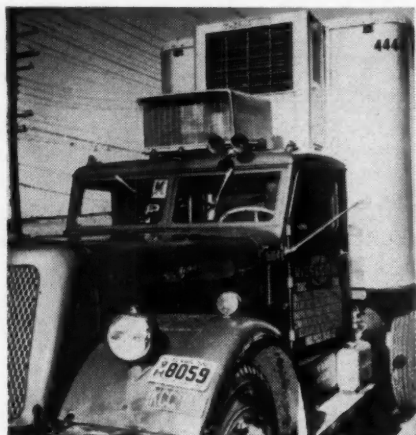
White Mustang Engines in range of sizes pack a real power punch up to 200 horsepower. Remarkably efficient and long lasting, too! Engineered and built by the world's greatest truck engine builders.

**GET THE FACTS ABOUT AMERICA'S POWER AND PAYLOAD
HIGHWAY FAVORITE—THE WHITE 3000**

eeper cab,
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May, 1955

Kysor Describes Cab Air Conditioner



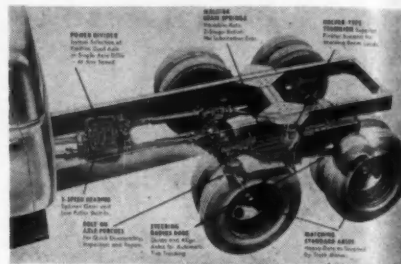
CONSTANT, uniform cab air conditioning by means of a self-powered, packaged unit easily installed on any cab roof will be offered to the trucking industry this summer by the Kysor Heater Co., Cadillac, Mich. A single unit fits any make or model of truck. The new unit, the "Blunorther," is designed for efficient operation at a 100-deg ambient tem-

perature median and, by means of Kysor-developed unique expansion valve structure, will operate at temperature peaks up to 130 deg without stalling or freezing.

On test at Austin, Texas, the "Blunorther" delivered 200 cfm of 44-deg air and maintained an average temperature of 74 deg throughout a truck cab at 96 deg ambient temperature and 35 mph speed. At 102-deg ambient temperature and 25 mph speed, the conditioner delivered 195 cfm of 52-deg air and maintained a uniform cab temperature of 78 deg.

The one and one-eighth ton capacity conditioner weighs 170 lb, operates with 100 per cent fresh air to pressurize the cab and distribute a uniform temperature, is contained in a streamlined housing 30½ x 30 in., 16½ in. high, which fastens to the truck cab roof through shock-mounts, and requires only the cutting of a single aperture for cool air feed from the evaporator chamber into the cab. It is powered by a 3.9 hp gasoline engine.

Dual-Axle Drive



Truckstell Mfg. Co., Cleveland, Ohio, has broadened its bid for the six-wheeler market with announcement of a new dual-axle drive unit. The new unit, engineered for tandem axle six-wheelers, is a combination of Truckstell's three-speed power divider and a new suspension, under test for the past three years. The suspension provides three new features; (1) it requires no lubrication, (2) automatic tire tracking is accomplished by specially-designed spring housing beams, steering torque rods and rubber bushed radius rods which align all driving wheels on the straightaway, and guide and control them on curves and contours, and (3) spring leaves in the unit are encased in a closed spring housing box and carried in upper and lower stages. Under light loads only the top stage is used. When the truck is fully loaded both stages come into play, supplying a support of 36,000 lb tandem axle rating.

Air Suspension Announced by Spencer-Safford Loadcraft

A NEW advancement in air-ride spring suspension has been announced by Spencer-Safford Loadcraft, Inc., Augusta, Kan. The new units provide a cushioned ride for heavy-duty transports, buses and trucks whether the vehicles are loaded or empty. General Tire and Rubber Company supply the air pillows.

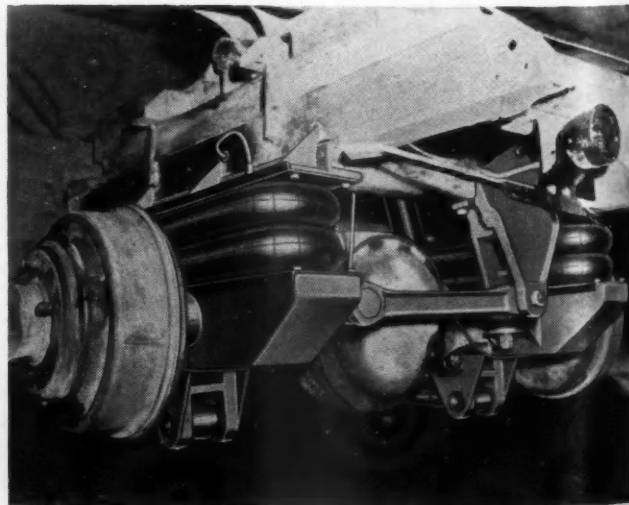
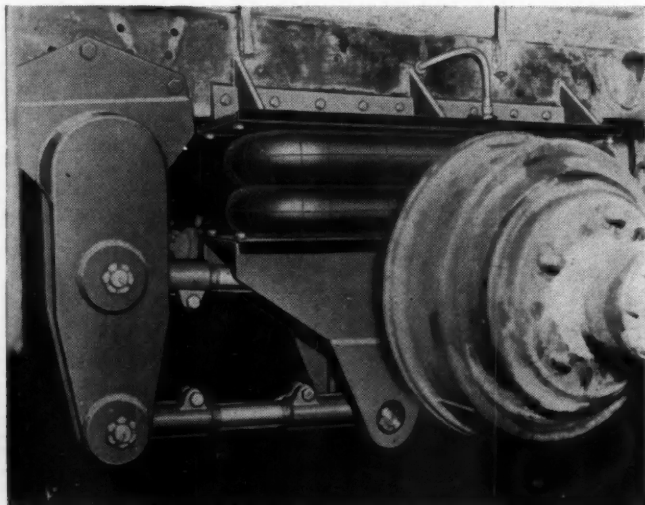
They can be installed on both single and tandem axle trailers, straight and semi-trucks, buses, and even on

fifth wheels. Installation can be made on existing trucks and trailers as well as on new equipment.

Design consists of two air pillows per axle that operate off the vehicle's air brake system and are controlled by automatic height control valves. The pillows are seated on an axle saddle on each side of the suspension to distribute the shock load over the entire surface. The air pressure inside the pillows automatically becomes

higher as the load increases and also adjusts itself if the load is uneven.

The axle is held vertical by two radius rods which are adjustable to give the proper alignment and proper camber for long tire wear. Also a positive stabilizer bar eliminates any possibility of side sway. In addition, hydraulic shock absorbers further stabilize the ride. Air pillows have rubber bumpers on the inside should the load ever bottom.



THE LEDGER TELLS THE STORY—

You're always ahead with Original Service Parts...



ORIGINAL SERVICE PARTS MEAN QUALITY— LOW COST-PER-MILE OPERATION

Only original service parts give you the assurance of quality and high performance standards specified by the truck manufacturer. You can depend on original service parts to keep your vehicles on the road rolling up profits and adding to them through lower operating costs.

Wherever you go, you'll find Auto-Lite Original Service Parts. The men who display the familiar Auto-Lite sign are in business to help you "keep 'em rolling" profitably. For top performance . . . low cost-per-mile operation . . . always ask for Auto-Lite Original Service Parts for your Auto-Lite equipped vehicle.

In case of emergency, look in the "Yellow Pages" for your nearest Auto-Lite Authorized Service Outlet under Automotive Electrical Service.



THE ELECTRIC AUTO-LITE COMPANY

Parts & Service Division

Toledo 1, Ohio

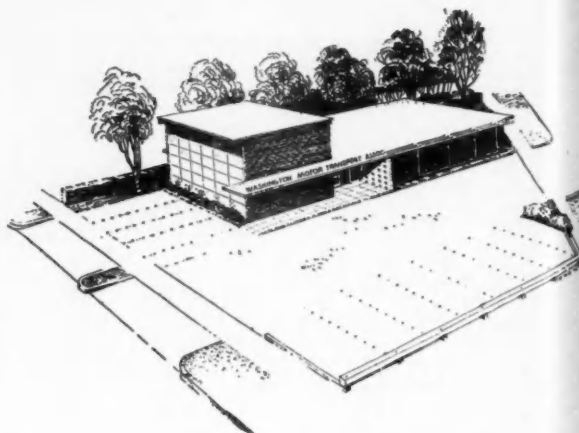
Sarnia, Ontario

ORIGINAL SERVICE PARTS

MAY NEWS ROUNDUP

WMTA's New Home

Architect's drawing of the new home of the Washington Motor Transport Assn. to be built at 4101 Fourth Ave., South, Seattle, Wash.



Truck Accidents Are Down

Based on accidents reported by interstate carriers, the Interstate Commerce Commission announces that truck accidents were down 13 per cent in 1954 as compared to 1953. In fact, there was a reduction in all categories as shown in chart below:

	1954	1953	Per cent decrease in 1954 compared to 1953
Fatalities.....	1238	1517	-17
Property Damage (in thousands).....	\$27,796	\$32,490	-14
Accidents—			
Fatal.....	981	1190	-16
Injury.....	7629	8901	-13
Property Damage.....	15,460	17,988	-14

ATA Safety Winners

Safest truck fleets in the National Truck Safety Contest have been announced by Goley D. Sontheimer, director, Dept. of Safety, American Trucking Assns. Winners were chosen on the basis of (1) fewest accidents and (2) accident-prevention programs. Special safety awards will be presented to the supervisors of companies placing first in several classifications of the Safety Contest by Electric Auto-Lite Co., Toledo, Ohio. Trailmobile, Inc., Cincinnati, Ohio, also awards a trophy to the trucking company making the greatest contribution to highway safety. It goes to

Pacific Intermountain Express, Oakland, Cal.

For the second consecutive year, the Pennsylvania Motor Truck Assn. was selected as the state organization with the most effective safety promotion program and will receive the ATA trophy. North Carolina Motor Carriers Assn. was second place winner with Michigan Trucking Assn. and Wisconsin Motor Carriers Assn. in third and fourth place respectively.

Winners of first place trophies are Arrowhead Transport Co., St. Paul, Minn.; Hudson Bros., Henderson, Texas; L. L. Majure Transport Co., Meridian, Miss.; Ward Transport, Inc., Pueblo, Colo.; Walker Hauling Co., Atlanta, Ga.; Petroleum Carriers Corp., Jacksonville, Fla.; Ruan Transport Corp., Des Moines, Ia.; Bison Freight Lines, Inc., St. Paul, Minn.; Whitfield Transportation, Inc., El Paso, Texas; Pacific Highway Transport, Seattle, Wash.; Buckingham Transportation Inc., Rapid City, S. Dak.; Dixie Highway Express, Inc., Meridian, Miss.; Garret Freightlines, Inc., Pocatello, Idaho; Inland Motor Freight, Spokane, Wash.; Davidson Transfer & Storage Co., Baltimore, Md.; Interstate Motor Lines, Inc., Salt Lake City, Utah; Gate City Sash & Door Co., Ft. Lauderdale, Fla.; F. J. Boutell Driveway Co., Inc., Flint, Mich.; Armco Drainage & Metal Products, Inc., Memphis (Columbia Lessors, Inc., Dallas, Texas); Video Independent Theatres, Inc., Oklahoma City, Okla.; Standard Oil Co., Birmingham, Ala.; De Tar Distributing Co., Oklahoma City, Okla.; Bekins Van & Storage Co., Los Angeles, Calif.; Heintz Manufacturing Co., Philadelphia, Pa.; Fitzgerald Baking Co., Columbia Transportation Service, Inc., Cincinnati, Ohio; Alton Box Board Co.—Transportation Department, Alton, Ill.; Aime Bourgault, Woonsocket, R. I.; Joerns Bros. Furniture Co., Stevens Point, Wis.; North American Van Lines, Inc., Ft. Wayne,

(TURN TO PAGE 188, PLEASE)

1955 Domestic Truck Factory Sales by G.V.W.*

	5,000 lb. and less	5,001-10,000	10,001-14,000	14,001-16,000	16,001-19,500	19,501-26,000	Over 26,000	Total
January.....	37,040	12,271	3,300	12,036	3,176	2,784	3,342	73,949
February.....	25,500	9,113	2,319	9,083	2,808	2,910	3,520	55,253
Total—2 Months 1955.....	62,540	21,384	5,619	21,119	5,984	5,694	6,862	129,202
Total—2 Months 1954.....	75,010	28,716	6,140	25,931	5,596	8,619	6,019	156,031

* Automobile Manufacturers Association.

Air Base—Trailer Size

Using platforms mounted on trailers to explore the possibility of eliminating runways under certain combat conditions, the jet plane launching technique was developed by the Air

Research and Development Command of the Air Force and the Glenn L. Martin Co. The launcher and transport vehicles have been designed and manufactured by the Union Switch & Signal Division, Westinghouse Air Brake Co. to Glenn L. Martin Co. specifications. Standard production Republic Thun-



der Jets were modified so booster bottles could be attached beneath their tails. Elevating arms on the trailers raised the fighter planes to the launching angle. The thrust of the booster bottles kicked the fighters off so swiftly they were immediately airborne. Launchers are mobile, can be moved.

WILSON

USES

SHULER AXLES



THERE ARE NO BETTER AXLES, AT ANY PRICE!

Since 1915, Manufacturers of: *One-Piece* Tubular and Square Commercial Trailer Axles, Heavy-Duty Front Axles for Trucks, Busses, and Off-Highway Equipment, Low-Bed Machinery Trailer Axles, Heavy-Duty Vacuum and Air Brakes, Miscellaneous Forgings.

SHULER AXLE COMPANY, Incorporated, LOUISVILLE, KENTUCKY

SUBSIDIARY OF FULLER MANUFACTURING COMPANY

SALES OFFICES in DETROIT, CHICAGO, OAKLAND and TULSA

WEST COAST WAREHOUSE
Oakland, California

SOUTHWEST WAREHOUSE
Fort Worth, Texas

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May, 1955

1955 New Truck Registrations by Makes by States*

STATE AND MONTH	Brock- way	Chev- rolet	Dia- mond T	Dodge	Ford	G.M.C.	Internat- ional	Mack	Reo	Stude- baker	White	Willis Jeep	Willis Truck	All Others	Total
Alabama	Feb. 404	2	96	419	79	122	6	6	8	4	7	3	1,156		
2 Mos. 874	3	188	807	181	244	12	1	14	17	8	11	4	2,364		
Arizona	Feb. 130	1	31	94	30	32	1	7	4	4	15	4	353		
2 Mos. 204	1	70	206	59	75	2	1	11	12	9	23	8	681		
Arkansas	Feb. 386	1	87	445	112	107	6	17	7	9	4	1,181			
2 Mos. 754	4	155	979	217	225	6	4	35	14	12	5	2,418			
California	Feb. 33 1,451	14	458	1,850	389	355	21	7	12	96	65	157	35	5,003	
2 Mos. 33 3,206	35	989	3,612	923	766	47	17	134	139	151	286	101	10,439		
Colorado	Feb. 205	1	58	216	49	63	3	7	9	5	37	56	17	724	
2 Mos. 453	2	130	448	125	158	5	8	21	10	55	114	23	1,552		
Connecticut	Feb. 72	5	33	111	12	39	5	4	3	10	9	15	5	327	
2 Mos. 221	9	97	257	77	106	7	8	5	42	10	24	13	681		
Delaware	Feb. 43	1	17	47	9	17	68	1	1	2	2	1	206		
2 Mos. 121	2	34	86	31	65	97	1	2	3	1	3	471			
District of Columbia	Feb. 39	1	13	34	6	10	1	2	2	2	2	107			
2 Mos. 86	1	25	72	12	24	1	5	26	45	41	50	2	230		
Florida	Feb. 613	5	161	628	180	173	30	9	26	45	41	50	1,967		
2 Mos. 1,175	7	280	1,245	346	351	79	15	57	79	65	105	16	3,820		
Georgia	Feb. 714	1	162	811	135	157	17	3	31	23	13	9	2,077		
2 Mos. 1,578	2	384	1,619	392	401	31	7	56	66	32	14	5	4,547		
Idaho	Feb. 86	1	26	111	33	50	2	3	8	4	9	10	346		
2 Mos. 185	3	67	197	77	101	6	3	19	5	18	54	5	740		
Illinois	Feb. 790	35	244	951	181	619	27	8	34	45	27	42	27	3,030	
2 Mos. 1,598	58	473	1,782	357	1,153	46	47	56	120	30	60	49	5,829		
Indiana	Feb. 374	10	93	453	79	260	3	1	72	44	4	6	1,403		
2 Mos. 1,045	14	264	1,035	209	642	7	14	122	99	13	29	36	3,529		
Iowa	Feb. 300	8	109	469	55	269	7	3	18	11	5	13	1	1,288	
2 Mos. 723	13	194	859	128	578	8	4	26	24	10	27	9	2,603		
Kansas	Feb. 307	2	38	312	60	114	2	2	11	7	4	15	870		
2 Mos. 755	2	118	650	143	332	7	7	30	14	8	31	2	2,082		
Kentucky	Feb. 332	3	66	347	87	105	6	2	9	32	20	11	1,022		
2 Mos. 827	3	151	712	197	242	16	3	25	35	30	29	12	2,282		
Louisiana	Feb. 469	2	85	517	73	136	8	22	12	13	5	1	1,343		
2 Mos. 1,123	3	186	1,181	212	327	11	2	64	24	30	12	1	3,176		
Maine	Feb. 66	1	11	69	29	36	1	6	1	7	16	3	248		
2 Mos. 183	1	36	153	67	73	10	1	12	9	17	41	4	607		
Maryland	Feb. 207	14	57	216	30	83	26	2	4	6	8	10	2	866	
2 Mos. 403	14	120	385	68	187	30	3	10	20	12	16	4	1,275		
Massachusetts	Feb. 250	10	45	338	51	92	15	5	5	29	15	36	7	900	
2 Mos. 469	23	100	619	85	154	30	9	10	45	24	57	14	1,643		
Michigan	Feb. 871	11	297	1,160	178	207	9	8	14	27	21	33	43	2,879	
2 Mos. 1,679	27	503	2,131	450	366	16	15	35	44	33	55	64	5,418		
Minnesota	Feb. 235	3	71	413	60	166	5	2	15	7	5	22	6	1,010	
2 Mos. 612	8	172	835	135	365	5	4	34	13	15	47	18	2,263		
Mississippi	Feb. 475	1	67	425	116	156	3	18	4	5	4	1	1,274		
2 Mos. 881	4	122	811	212	247	6	4	34	8	6	14	1	2,342		
Missouri	Feb. 595	4	101	601	113	202	4	1	16	16	11	7	1,684		
2 Mos. 1,481	7	256	1,414	328	632	9	5	37	54	16	23	20	4,282		
Montana	Feb. 97	1	31	117	31	64	5	8	11	16	63	2	445		
2 Mos. 197	2	72	244	72	127	8	4	16	12	33	107	10	886		
Nebraska	Feb. 155	23	63	337	58	146	4	1	10	10	4	17	40	868	
2 Mos. 558	33	140	681	134	375	8	2	23	19	14	48	83	2,116		
Nevada	Feb. 38	1	20	66	22	18	1	14	7	7	14	1	200		
2 Mos. 71	1	35	107	41	111	1	1	21	1	7	28	1	423		
New Hampshire	Feb. 29	1	13	34	6	5	7	2	1	7	9	2	117		
2 Mos. 69	1	31	86	15	27	10	1	4	2	7	11	2	265		
New Jersey	Feb. 260	7	111	314	88	126	15	15	33	9	31	10	1,024		
2 Mos. 31 676	19	254	711	273	278	44	8	31	111	22	54	38	2,560		
New Mexico	Feb. 117	4	40	101	31	48	1	8	1	7	5	1	364		
2 Mos. 280	4	82	202	84	93	2	1	15	4	22	26	1	795		
New York	Feb. 571	24	463	617	185	362	82	25	26	84	52	103	59	2,646	
2 Mos. 85 1,299	67	941	1,275	528	980	132	57	53	219	102	213	126	6,037		
North Carolina	Feb. 523	2	126	640	120	136	41	33	28	15	10	4	1,678		
2 Mos. 1,006	11	236	1,134	215	251	61	1	46	48	33	22	6	3,079		
North Dakota	Feb. 38	1	27	55	13	74	1	2	1	4	6	1	219		
2 Mos. 68	1	52	123	47	170	1	1	6	1	4	10	1	481		
Ohio	Feb. 668	8	178	918	98	391	24	7	20	73	25	47	43	2,500	
2 Mos. 2 1,458	15	394	1,643	256	825	48	16	40	129	64	75	70	5,035		
Oklahoma	Feb. 454	1	117	534	121	180	6	15	13	4	5	3	1,453		
2 Mos. 812	1	157	823	212	310	17	6	25	30	9	13	5	2,414		
Oregon	Feb. 275	6	67	290	73	102	6	1	20	11	15	68	11	945	
2 Mos. 484	6	130	514	106	212	12	6	32	22	47	132	19	1,782		
Pennsylvania	Feb. 644	5	247	749	135	456	38	7	36	61	5	38	11	2,447	
2 Mos. 35 1,148	17	465	1,333	272	949	122	28	74	100	9	141	27	4,829		
Rhode Island	Feb. 60	4	10	63	6	23	4	1	7	3	2	1	184		
2 Mos. 1 111	4	27	143	12	55	8	3	3	7	3	2	3	302		
South Carolina	Feb. 198	1	49	251	42	85	9	5	9	2	3	1	623		
2 Mos. 444	1	125	495	86	114	13	1	14	26	5	6	1	1,329		
South Dakota	Feb. 73	2	23	108	23	46	1	6	1	7	17	7	307		
2 Mos. 183	2	57	244	58	190	3	1	12	3	20	35	7	605		
Tennessee	Feb. 344	2	86	459	78	122	3	2	9	19	7	7	1,138		
2 Mos. 772	4	209	854	203	257	4	2	22	40	11	14	7	2,382		
Texas	Feb. 1,305	6	222	1,321	202	395	9	2	49	72	24	37	8	3,632	
2 Mos. 3,305	16	600	2,946	502	1,057	31	5	114	157	78	68	18	8,897		
Utah	Feb. 62	1	32	58	23	38	1	5	1	12	14	5	251		
2 Mos. 77	1	44	72	47	62	1	2	8	2	20	27	7	389		
Vermont	Feb. 48	1	12	18	6	17	1	2	2	12	22	7	135		
2 Mos. 75	1	29	56	15	38	1	1	2	2	24	45	6	287		
Virginia	Feb. 417	2	97	477	79	95	15	8	30	17	17	28	6	1,286	
2 Mos. 1 778	3	211	857	153	231	31	11	44	37	31	41	8	2,437		
Washington	Feb. 166	4	84	232	96	88	3	7	4	10	48	4	749		
2 Mos. 444	5	239	552	272	248	8	5	20	18	35	92	11	1,849		
West Virginia	Feb. 142	1	56	180	44	40	6	8	8	21	32	2	540		
2 Mos. 265	1	126	299	94	94	8	3	15	18	44	45	4	1,016		
Wisconsin	Feb. 338	2	69	337	105	232	8	1	15	9	11	16	8	1,181	
2 Mos. 576	5	157	539	201	446	13	3	31	18	17	29	18	2,053		
Wyoming	Feb. 60	2	15	88	21	28	1	2	1	21	34	2	27		

* Data from R. L. Polk & Co.

"ONLY



MR. L. M. V.
PRESIDENT—
OKLAHOMA

Voss has 7
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the Prairie
Voss' father

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Offices
AMARILLO,
ATLANTA,
CHICAGO,
DENVER, C
DES MOIN

COMMERCIAL C

es*

Total

1,156
2,364
353
661
1,181
2,410
5,003
10,438
724
1,552
327
881
206
471
107
230
1,967
3,820
2,077
4,547
346
740
3,030
5,829
1,403
3,829
1,256
2,603
870
2,092
1,022
2,282
1,343
3,176
248
607
696
1,275
900
1,643
2,879
5,418
1,010
2,263
1,274
2,342
1,664
4,282
445
896
696
2,118
200
423
117
255
1,024
2,558
364
795
2,648
6,637
1,676
3,079
219
481
2,509
5,035
1,453
2,414
945
1,762
2,447
4,620
184
382
823
1,329
307
605
1,136
2,292
3,652
8,977
251
369
135
287
1,288
2,437
749
1,949
540
1,016
1,181
2,053
272
555
56,242
80,948
118,436
121,542

"ONLY TRUCKS USING PHILGAS FOR US FROM NOW ON."



MR. L. M. VOSS
PRESIDENT—VOSS TRUCK LINES, INC.
OKLAHOMA CITY, OKLAHOMA

Voss has 70 trailers and 48 tractors hauling freight from Chicago to Oklahoma City. Their equipment is a far cry from the Prairie Schooner Mrs. Voss' father used back in 1889.



'Why' comes naturally to mind when a progressive truck line decides in favor of Philgas®. The answer is in the performance of those L190 International trucks Voss has running on Philgas.

"We're getting 4.2 miles per gallon on Philgas—as good as we do on gasoline."

"No major repair or replacements in 87,000 miles. One tractor went 47,000 miles on the same plugs."

"Our maintenance cost per mile is much lower. No fuel pump is used—so no fuel pump trouble on the road."

"Philgas costs us less per gallon. Combine this with lower maintenance and you can see why our cost per mile is less with Philgas."

Voss has another use for versatile Philgas. Specializing in perishables, Voss uses mechanical refrigeration units operated by Philgas. Trouble causing the unit to go out while on the road means the loss of a pay load. Since using Philgas, Mr. Voss reports: "We've had absolutely no maintenance trouble caused by the fuel in these units."

The performance of Philgas in actual use today gives Mr. Voss ample reasons for saying about the future: "Only trucks using Philgas for us from now on." What Philgas is doing for Voss Truck Lines, it can do for you. It is an ideal fuel for trucks, buses, cabs—wherever internal combustion power is needed. Write for additional information.



Philgas is our name for high quality
LP-Gas—Bottled Gas—Butane—Propane,

WITH PHILGAS IT'S PERFORMANCE THAT COUNTS!

PHILLIPS PETROLEUM COMPANY

SALES DEPARTMENT, Bartlesville, Oklahoma

Offices in:

AMARILLO, TEX.—First Nat'l Bank Bldg.
ATLANTA, GA.—62 11th St., N. E.
CHICAGO, ILL.—7 South Dearborn St.
DENVER, COLO.—1375 Kearney Ave.
DES MOINES, IOWA—606 Hubbell Bldg.

HOUSTON, TEX.—1020 E. Holcombe Blvd.
INDIANAPOLIS, IND.—1112 N. Pennsylvania St.
KANSAS CITY, MO.—500 West 39th St.
MINNEAPOLIS, MINN.—212 Sixth St. South
NEW YORK, N. Y.—80 Broadway
OMAHA, NEB.—WOW Building

RALEIGH, N. C.—804 St. Mary's Ave.
ST. LOUIS, MO.—4251 Lindell Blvd.
TAMPA, FLA.—1214 South Dale Mabry
TULSA, OKLA.—1708 Utica Square
WICHITA, KAN.—501 KFH Building

Streamlined Parts Inventory Saves Time

Continued from Page 73

Teletype Speeds Service

We have a teletype at our maintenance headquarters office, and in other than emergencies, terminal managers or parts room men must teletype maintenance headquarters for authority to make purchases,

stating stock item needed, number needed, for what vehicle needed, and the best local price available. This enables our purchasing agent to determine whether it is necessary to make the purchase locally or whether it is possible to ship

the parts from another shop parts room where there is a surplus. All the purchasing agent need to do is turn to the master file at headquarters.

Suppose at our St. Louis shop the parts department needs an exhaust valve (VE 866-X). The local parts man goes to his perpetual inventory. He gets the card for this part. On this card it shows all sources where this valve has previously been purchased in his territory. Card also shows the lowest price paid for that part, and the price carried on the master card for that part at maintenance headquarters.

If there is a dire emergency, the parts man knows where to buy part needed locally. If not an emergency, parts man teletypes headquarters and will know in a reasonably short time whether part will come to him from one of the other parts rooms, where there is a surplus, whether it is being purchased at headquarters, or if he is to buy it locally, taking advantage of his best price.

Records Keep Accurate

Each parts room has a number. For example Texarkana parts room is No. 36, and this number is the permanent account number for that parts room.

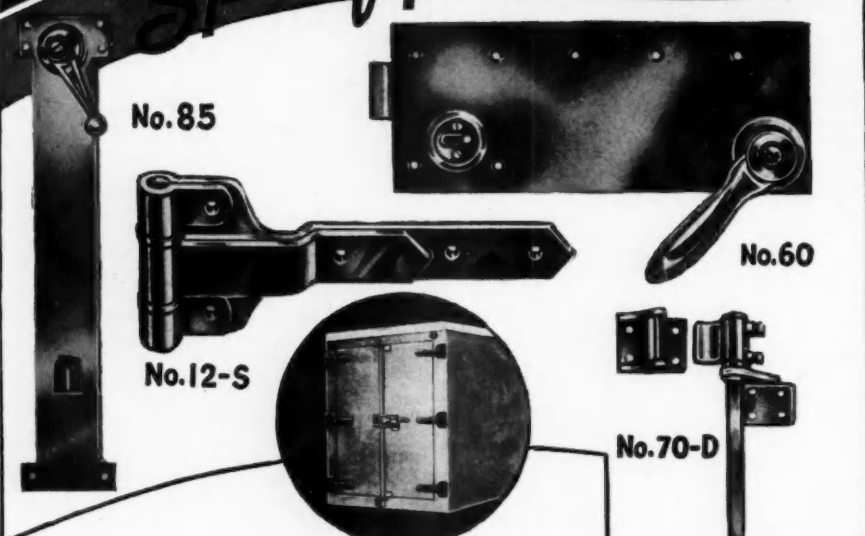
All parts purchased by a parts room, shipped to it from headquarters or another parts room, or charged to that account number must be accounted for on the inventory card and it is the responsibility of the local personnel to see that this is done and the perpetual inventory record is maintained and to see that all parts issued from the parts room are properly charged out to the proper vehicle. Each parts room man makes out a daily mechanical parts room charge sheet which shows Vehicle No., the price and No. of part. Sheet is signed by parts man. Each store room charge sheet is dated and numbered and extended as totals and mailed to maintenance headquarters daily.

When these sheets arrive at maintenance headquarters, they are checked against the master perpetual inventory (which is a master card inventory for each of the seven parts rooms).

(TURN TO PAGE 112, PLEASE)

for STEADY SERVICE

Specify HANSEN



No. 85

No. 12-S

No. 60

No. 70-D

BUILT especially to withstand the wear, tear and rough usage of commercial body service, Hansen Hardware reduces repairs, breakage and replacements to a minimum. Examples are the products illustrated.

No. 12-S Square-Corner Hinge. Leaf-type, two-ply, all-steel. 12" strap. Weight, 2¾ lbs.

No. 60 Lock. One-piece. 5" x 10". Hardened 1¼" striker bolt. Die-formed steel bushing.

No. 85 Regulator. Enclosed mechanism. Straight lift. Lead-coated to prevent rusting.


No. 70-D Refrigerator Door Lock. Lug-leverage action. Lugs and handle adjustable. Rod 72".

Whatever type of service in which Hansen-equipped trucks, trailers and tanks are engaged, Hansen stands up under hard, heavy-duty, grueling service—insuring steady performance and economy.

Hansen makes commercial body hardware in a complete line—Locks, Regulators, Hinges, Handles. What are your requirements?

**REQUEST
NEW
FOLDER**

A. L. HANSEN MFG. CO.
5047 RAVENSWOOD AVE.
CHICAGO 40, ILL.



MORE manu
 "Steering L
 when design
 cars, trucks
 tomorrow.
 And for go
 learned tha
 Thompson"
 of supply. A
 to count on
 developmen
 for steering
 applications
 linkage unit
 and today's
 tomorrow's

"Let's be sure to specify

STEERING LINKAGE BY THOMPSON"



MORE and more automotive manufacturers today specify "Steering Linkage by Thompson" when designing and planning their cars, trucks, buses and tractors of tomorrow.

And for good reason—for they've learned that "You Can Count on Thompson" as a dependable source of supply. And they've learned, too, to count on Thompson for important developments in ball joint design, for steering linkage, as well as other applications. Thompson's steering linkage units are in yesterday's cars and today's cars. And they'll be in tomorrow's cars, too.

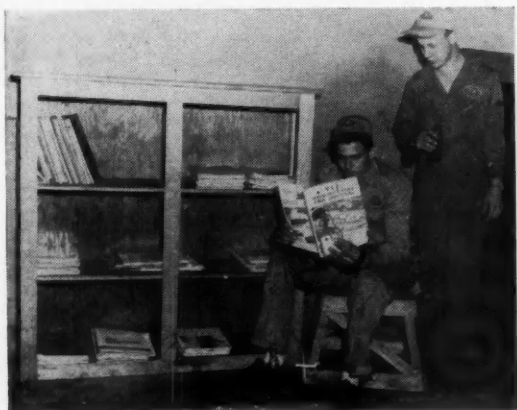
Typical of these developments is the revolutionary Thompson-engineered front suspension ball joints, the greatest advance in automotive front suspension in 20 years. For over 50 years Thompson has played an important role in the automotive world. If you use steering linkage assem-

blies, specify "Steering Linkage by Thompson". For details on how Thompson's skilled steering engineers can help you with your steering linkage developments, write, wire or phone Thompson Products, Inc., Michigan Div., 7881 Conant Ave., Detroit 11, Michigan, WA 1-5010.

Thompson Products

MICHIGAN DIVISION
DETROIT • FRUITPORT • PORTLAND

COMMERCIAL CAR JOURNAL, May, 1955



This maintenance library is an adjunct of ETMF's Texarkana parts room. Mechanics check out literature for reading at home. Plan is to have similar libraries at all ETMF shops. Says ETMF, "The men who use it are the ones that get ahead in our fleet."

CONTROLLED HEAT

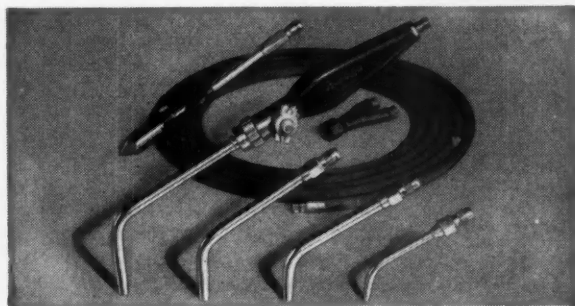
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Body Soldering

Prest-O-Lite

Trade-Mark

BODY SOLDERING OUTFIT



Body
Soldering
Outfit



Solder the modern, economical, air-acetylene way. With the four different sized stems and the soldering iron in this outfit, you can handle any body soldering job without wasting gas on unnecessary heating. A shutoff valve and pilot flame control, built into the handle of the torch, insure efficient operation and gas economy. Just attach the handy "Y" connection to the outlet of your acetylene welding regulator and operate both oxy-acetylene and air-acetylene outfits from the same cylinder. Ask your local LINDE jobber for a demonstration. Or write to LINDE AIR PRODUCTS COMPANY, a Division of Union Carbide and Carbon Corporation, 30 E. 42nd St., New York 17, N. Y. In Canada: Dominion Oxygen Company, Division of Union Carbide Canada Limited, Toronto.

Get it from your LINDE jobber

The terms "Prest-O-Lite" and "Linde" are registered trade-marks of Union Carbide and Carbon Corporation.

Streamlined Inventory

Continued from Page 110

With this setup, we can tell at headquarters the actual parts condition at each of the parts rooms. A short study of this master card file will tell us in a very short while whether the parts man at a certain shop is keeping accurate records and cooperating with us. For example: Suppose a parts man shows he has 10 of a certain part in his stock, and that the record shows that his average demand on this part is two per month. Now if this parts man asks to buy five additional on this particular part, without an explanation, this indicates to us that here is a shop which needs to be watched.

Because of this accurate record, giving us a reliable perpetual inventory, with the master perpetual inventory record at headquarters, we can quickly and cheaply move an over-stock from one parts room to another, cutting down on parts purchases. This is very important. It gives us proper distribution.

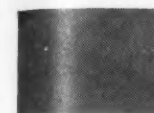
At maintenance headquarters we have a purchasing agent, a general parts manager, and two clerks.

A Daily Check

All invoices for the purchase of parts, petroleum products, tires, or vehicles, come to the general parts manager. Each invoice is recorded on the perpetual inventory. The master book carrying this posting shows: Source, IW No., Parts No. and description, and price paid. After this information is posted, the invoice is forwarded to general accounting department each day. Here it is posted on IBM card. Purpose of having the master book at maintenance headquarters is so the maintenance department can process all invoices *daily* instead of letting them pile up until the source mails in statement at end of month.

In other words, the maintenance headquarters checks the source statement against the record shown in the book instead of against invoices. This method permits steady flow of invoices covering purchases through the maintenance head-

(TURN TO PAGE 114, PLEASE)



EXPERT BA
This alone mea
more mileage.

KRAFT SYS

KRAFT

SYSTEM

RECAPPING

A GENERAL TIRE SERVICE

MAKING

EXTRA MONEY for TRUCKERS

SINCE 1940

**Now Better than Ever
with 4 Big Advantages for You**

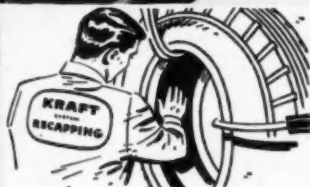
HOW LONG HAS IT BEEN? When did you last think about putting in a real, money-saving recapping system on your fleet? Leading operators are switching to the Kraft System in greater numbers than ever before. Because it's better than ever—the one business-like, factory-controlled system that saves you time, money and worry. Call your General Tire Distributor—Headquarters for every Truck Tire Service.

- 1 Extra-long mileage, top-quality materials
- 2 Factory-approved equipment
- 3 Factory-trained recappers
- 4 Guaranteed service



EXPERT BALANCING

This alone means up to 25% more mileage.



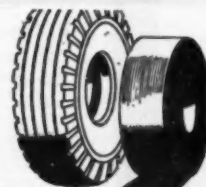
CERTIFIED INSPECTION

Assures you that your tire can be recapped safely!



ACCURATE BUFFING

Precision buffing assures better adhesion of new tread to tire body.



NEW TIRE RUBBER

The same high quality rubber used in the new General tire.

KRAFT SYSTEM RECAPPING IS AUTHORIZED ONLY BY THE GENERAL TIRE & RUBBER COMPANY

Streamlined Inventory

Continued from Page 112

quarters and the accounting department, allowing these departments to have a minimum number of workers who are kept equally busy at all times and are able to always close out their books without extra help and always on schedule at the end of each month.

Back to the daily mechanical

parts room charge out sheet: This is in duplicate, one copy being retained at parts room and the other, as explained, going to maintenance headquarters where master perpetual inventory cards are posted. Maintenance headquarters then forwards the original sheet to the accounting department, where it is run through IBM and that particular parts room credited with each item and the total amount shown.

A Double Check

At each parts room and at maintenance headquarters, cards in the perpetual inventory and the master record, cards are flagged with blue flag to indicate part supply is down to minimum; and a red flag when part is completely out.

The general accounting department furnishes maintenance headquarters each month with a statement showing the total amount of purchases charged to each parts department, the total amount of parts and materials withdrawn from each parts room, and the total dollar and cents inventory which should be on hand at each parts room at the end of the month.

Our parts inventory record is kept accurate. We know what we need and we know where to get it intelligently at a right price. When a parts department gets out of line, we know it and can make the necessary changes before we have a substantial loss or a badly balanced parts stock distribution.

The result has been a better operation all along the line and we are doing it with one fifth as much money invested in parts as was formerly necessary. And our parts loss has been reduced to almost nil.

END

Please Resume Reading Page 74

Diesel operators prefer STEWART-WARNER electric tachometers



for
4
good
reasons!

Recorder Model—3" face dial. Red "Economy Range" markers, revolution counter and totalizer (Odometer).

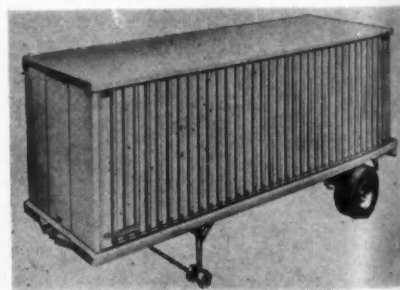
1. **Reduced Maintenance Costs**—no flexible shafts to break or need repairs.
2. **Longer Life**—precision engineered to operate at a slower speed, last longer. Result? Rugged, year-after-year dependability.
3. **Greater Accuracy**—positive electric drive assures highest accuracy at any speed—any temperature—for safer, more economical operation.
4. **Easier to read**—Large illuminated face dial. Full 270° pointer travel. A really steady pointer. Adjustable red markers help driver stay inside "economy range."

Simple installation. No extra relay controls.
See your dealer or write:

STEWART-WARNER

Instrument Division, Dept. DD-55
1840 Diversey Parkway, Chicago 14, Illinois

Fruehauf City Van



Fruehauf Trailer Co. is introducing a new city delivery van designed to be easy loading because of its wide rear door opening. Because of its sharp turning radius this new van can outmaneuver straight trucks of nearly comparable capacity. Steel crossmembers are on 18-in. centers. Top and side rails are of a special indestructible type made from boiler plate steel. Rear platform is surfaced with a heavy-duty diamond tread. Floor is composite steel and hardwood for long wear and extremely hard usage. Heavy-duty base board of fir, 40 in. high, is provided at the front of the interior to withstand wear and load shock.

"TAC

Vice President examines tachometers on many modern increased efficiency vehicle fleet.

TOUGH LOADS. Oils are kept Cities Service Trojan Grease

COMMERCIAL CAR

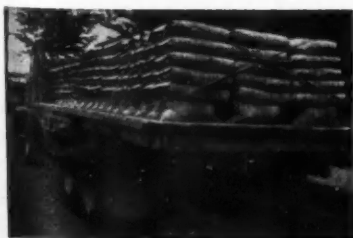


Says Olson Motor Service:

"TACHOGRAPHS AND CITIES SERVICE FOR TOP EFFICIENCY"



Vice President J. B. VANDE CREEK examines tachograph chart, one of many modern techniques that have increased efficiency of Olson's 125 vehicle fleet.



TOUGH LOADS . . . TOUGH LUBRICANTS. Olson's hard-working tractors are kept in top condition by Cities Service C-300 Motor Oil and Trojan Greases.

Dual tachographs and Cities Service Lubricants—that's the combination that's really paid dividends to Olson Motor Service, operators of a 125 vehicle trucking fleet in Milwaukee, Wisconsin.

Installed in Olson's high mileage units, the tachographs provide a permanent record of engine RPMs, hours of operation, mileage, and road speeds. This serves two purposes. First, it aids in establishing better operating practices. Second, it enables lubrication practices tailored to the specific requirements of the operating conditions revealed by the tachographs.

This desire for exact information is typical of Olson's thoroughness. So, too, were the numerous laboratory tests and experiments which resulted in their choice of Cities Service Lubricants. In each case, the reward has been great. Says Vice President J. B. Vande Creek: "As a result of our switch to Cities Service C-300 Motor Oil and Trojan Greases and Gear Lubes, failure of wearing parts has been greatly reduced and maintenance costs minimized."

Yes, that's Olson's record with Cities Service . . . and a similar record can be yours also when *you* start using the Cities Service line. For more information, contact your nearest Cities Service Office or write: Cities Service Oil Company, Sixty Wall Tower, New York 5, N. Y.

CITIES SERVICE

QUALITY PETROLEUM PRODUCTS

Shop Designed Tools Trim Bus PM Costs

Continued from Page 75

that folds up and clips out of the way. The complete cost of the portable unit came to \$339.03.

3. Engine Stand

Designed for 4-cyl GMC diesels, this stand is wheeled into position

and bolted to the side of the block for engine removal. Fitted with an adaptor, as shown, it is a differential repair stand. It also will accomodate a 6-cyl engine.

The stand was made from used materials. Bearing for the main

shaft was a Part No. ND 1312 from a Model No. 91 transmission. The worm and gear were bought from a local gear company.

4. Tension Tester

When relining brakes, this unit is used to equalize brake spring tension on both sides of the bus. Springs are pinched or spread to vary the tension. It is hydraulically operated. The one pictured here uses a master cylinder from a Jeep, although just about any kind will serve. The column is of 2-in. channel iron mounted on 1/2-in. plate and notched at 1/2-in. intervals.

In testing the springs, they are first measured to be sure they are the same length. They are then balanced in pairs, checking the tension with the gage as they are stretched.

5. Engine Parts Rack

This shop-made rack holds an entire disassembled engine. Its four tiers of expanded metal permits steam cleaning of all parts without being removed from the rack. It includes a stand for supporting the crankshaft vertically and a holder for the flywheel.

The four tiers of expanded metal are welded to angle iron frames, and the rig sets on 10-in. wheels. It measures about 5 1/2 ft high.

6. Wheel Tester

Wheels are slipped onto this tester, which is firmly bolted to the wall, and checked for out-of-round. As the wheel being tested slowly revolves, it actuates a gage through a small roller riding against the wheel on the back flange. The gage is firmly mounted on a rod inserted in heavy base which rests on the floor. Movement of the gage's needle off the center horizontal position indicates the amount of out-of-round.

The tester was made from a discarded front wheel spindle and an old hub. The spindle is welded to a 6-in. length of channel iron. The hub was machined to the true face. The wheel being checked is held on the hub with two wheel lugs. The dial gage is

(TURN TO PAGE 120, PLEASE)



use your headincrease your

pay loads with



Available in aluminum or steel and in different models to suit your specific operation, Homan landing gears are adaptable to any make, size or style of trailer. Write for complete details and specifications today.

HOMAN

PRECISION-BUILT

LANDING GEARS

Add extreme lightness to a super-strong landing gear, and you get bigger, heavier pay loads in your trailers. Homan landing gears are expertly designed, precision built for longer trouble-free service. With their 2-speed reduction unit, you save time and handling effort. Completely sealed lubrication insures maximum ease of operation under all conditions.

For Fast Dependable Service Ship by Truck Trailer



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AND COMPANY, INC.

READING - CINCINNATI 15, OHIO

ESTABLISHED 1847

ADC* Oilprint Analysis

CHECKS CRANKCASE OIL IN MINUTES

Shell Research gives you new
oil-change yardstick—

Now—operators can test crankcase oil in the short time allotted for refueling and crankcase oil checks. The Shell ADC Oilprint Analysis gives a practical and accurate oil evaluation in minutes.

ADC Oilprint Analysis means big savings when used in your preventive maintenance program . . . gives valuable information on engine and oil

conditions. It answers the question "When do I change my oil?" thus eliminating the draining of usable oil and the risk of using oils loaded with contaminants.

See for yourself how the new Shell ADC Oilprint Analysis can save you real money in preventive maintenance. Let us demonstrate how you can use this new service for your fleet.

SAVES... Time, Money, Engines, Oil

*Trademark

SHELL OIL COMPANY,

50 WEST 50TH STREET, NEW YORK 20, NEW YORK
100 BUSH STREET, SAN FRANCISCO 6, CALIFORNIA



Shop Designed Tools

Continued from Page 116

calibrated in 1/16-in. increments with the small roller on the arm that contacts the wheel. The tester is also used to check the rim for out-of-round.

7. Rear End Jack

Built from scrap for less than

\$8, this rear end jack permits one-man removal of differentials on all GMC coaches up to model No. 4509. Fresno says it eliminates danger of dropping the rear end.

Mounted on 4-way castors, the jack is made of 1½-in. pipe. The gear box is from a model T Ford transmission overhaul stand.

8. Generator Remover

Like a spoon, this device is

hooked up to a "Handy Andy" and slid under a generator which is to be removed. It permits easy one-man removal or replacement of a heavy and hard-to-get-at unit.

9. Power Unit Stand

Intended for 6-cyl diesels, this cradle holds engine and transmission. They are unbolted and slid onto the frame of 2½-in.,



you can cut maintenance costs by saving man-hours



Model "1206"—120 Gals. per hour capacity. One of 80 JENNY types for your needs.

WITH **Jenny** HYPRESSURE
STEAM CLEANER

Besides cutting maintenance time and labor expense by cleaning equipment 10 times faster . . . and better, than any other known method, Series "1200" Hypressure JENNY Combination shortens vehicle repairs as much as 40% by removing the muck, dirt and grease that slow mechanics down and run up costs. Combination JENNY cleans motors . . . chassis . . . wheels . . . springs; removes sand and grit from lubrication fittings; reverse flushes complete cool-

ing systems—radiator, motor block and heater; keeps floors . . . walls . . . pits . . . lifts . . . tools and equipment clean for safe, efficient, economical shop operation.

For complete information on how Series "1200" Hypressure JENNY Combination can cut maintenance time in your shop by saving man-hours and speeding repairs

MAIL THE COUPON TODAY!
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Send FREE BOOKLET "1001 Ways To Extra Profits with Hypressure JENNY"

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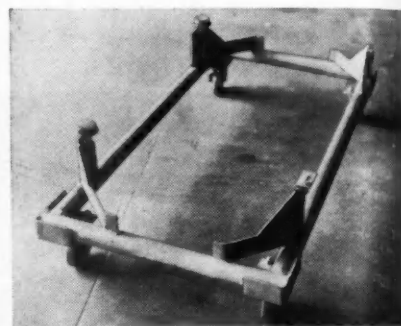
HYPRESSURE JENNY DIVISION

HOMESTEAD VALVE MANUFACTURING COMPANY

"Serving Since 1892"

P. O. Box 90

Coraopolis, Pa.



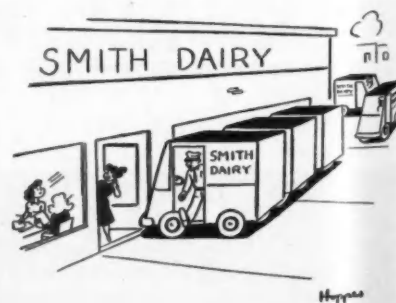
This power unit stand is designed for 6-cyl diesels. It holds both engine and transmission. The leveling device is made from king pin thrust bearings

welded pipe. The frame is reinforced with ¾-in. steel plate and rolls on 6-in. rubber tires. It permits Fresno to put coaches back in service quicker through unit replacement of faulty components. A replacement job takes less than three hours.

The leveling device on the stand was made from used king pin thrust bearings taken from a Model No. 3610 bus. The bearing is welded to a 1-in. standard cap screw 5-in. long. A nut is welded to a 1¼-in. ID steel tube and the tube is welded to the main frame of the unit. The cap screw is screwed up or down for leveling the engine.

END

Please Resume Reading Page 76

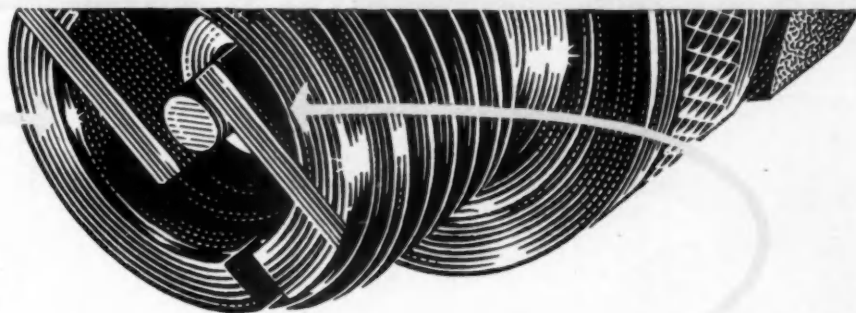


"Primp up, Girls! The fleet's in!"

COMMERCIAL CAR JOURNAL, May, 1955

HASTINGS "AERO-TYPE"

- ⚡ Sparks Up Performance
- ⚡ Steps Up Plug Life
- ⚡ Cleans Up Easier



WITH SHROUDED TWIN ELECTRODES

Here is a premium performance spark plug. It's Hastings Aero-type with shrouded twin electrodes and aircraft construction—the greatest improvement in modern automotive spark plug engineering.

The Hastings Shrouded Plug performs better, lasts longer, cleans easier. Two ground electrodes (one on each side of the center electrode) double the service-life and permit easier cleaning. Cleaning abrasives get all around the insulator tip and electrode firing surfaces to renew performance and life.

Hastings plugs operate with considerably higher insulator temperature, to retard fouling. And yet the electrodes, being out of the path of the hot flame sweep, operate at a lower temperature and with increased life.

The H. T. aluminum oxide insulator . . . corrosion-resisting solid copper gasket . . . accurate heat rating . . . and engineering for replacement service—all go to make this a plug built for premium performance.

HASTINGS MANUFACTURING COMPANY • HASTINGS, MICHIGAN • HASTINGS LTD., TORONTO
Spark Plugs, Piston Rings, Casite, Oil Filters

HASTINGS



Aero-type Shrouded **SPARK PLUGS**
ENGINEERED FOR REPLACEMENT

COMPRESSOR PLUS VALUES



Performance

has established Ingersoll-Rand Type 30 Compressors over the years . . . famous for highest efficiency.

Dependability

is certainly one of the factors you demand most in a compressor—and you can rely on Ingersoll-Rand! Air is *there* when you need it, so your production flow never lags.

Quality

is evident in every I-R Type 30 Compressor—from the 1/2 hp through the 20 hp size with pressures to 250 psi—trouble-free operation—top economy! Get catalog 1500-C for more detailed information.

3-246

Ingersoll-Rand

11 Broadway, New York 4, N.Y.



Originators of Impacttools

AIR & ELECTRIC

Hoosier Public Relations

Continued from Page 94

plane. They are reaching a combined circulation of 12,256,120 with a total readership of nearly 50 million people. That's the way you sell trucking. Yes, people in Indiana and thereabouts know why those trucks are on the highways.

Indiana's PR is beamed at the farmer primarily because of the high percentage of population located in rural areas in that state. But they have not overlooked the schools, the business men, the civic groups, manufacturers, as well as city and state officials in this enlightening campaign. The association provides editorial copy along with appropriate mats for 127 state weekly newspapers. The "Hoosier Happenings," made up of homely slants and personal human interest events, is written by the staff. Only gimmick is a plug for the industry which Jim gets in somewhere in the column. Like this one:

"Trucker Aids Firemen—

When the water supply in Star City gave out during a \$150,000 fire which recently destroyed the main building of the Star City Elevator Co., John Moyer, who operates the Moyer Trucking Co. in that city, hauled 18,000 gallons of water from Winamac, six miles away. Moyer loaded empty pickle vats on several trucks and with the help of fellow townsmen, shuttled back and forth between the two cities."

Editors Go For It

This stuff gets readership. Editors often use the column on the front page, and sometimes readers send in material on their own. In a recent check 373 articles were sent out to country editors. Last count showed clippings from 170 local papers. There is no high pressure involved. There is no ulterior motive on the part of the association aside from that of acquainting the citizenry with the trucking industry.

In addition the association provides localized stories for 39 dailies throughout the state. It may hit

the Sunday papers. It shows trucks in Today's state mill in the may deal ceramic tiles, safety tions prog scene for t

Radio & T

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AL, May, 1955

the Sunday papers or the Monday papers. It is primarily industry news, showing the importance of trucks in a particular industry. Today's story may be on a steel mill in the vicinity. Tomorrow it may deal with the trucks of a ceramic tile factory. Shop facilities, safety work, employee relations programs usually set the scene for the stories.

Radio & TV Programs

Radio programs as well are promoted by the association. Aimed at the farm listener primarily, the present program utilizes 18 stations throughout the state. Summaries of news of interest to agriculture compose the program, but after all, a high percentage of Indiana people are closely associated with the farmer and his problems.

Presently two TV color movies on the trucking industry are being prepared. These will deal with the service of trucks and with their work in specific community industry. They will soon be available to civic groups, television stations and any industry interested in helping to disseminate basic information of this nature.

The association makes available a total of 11 films which have been prepared by related industry. Their interest is primarily that of distributing them and seeing that interested groups know of their availability. They are stored in a library and serviced periodically so that amateur users will have no trouble in showing them.

The association's "Fifth Wheel," monthly publication with a circulation of approximately 10,000—similar to those of other state associations, helps to keep membership informed of legislative and industry developments.

The association seldom is caught napping when there is work to be done. For instance, when the Freedom Train got so much play some-time ago, Jim set about to set up a little publicity of his own. Result was what became known as the "Hoosier Heritage Caravan," a truck trailer equipped with some of the most historic souvenirs and documents of the State of Indiana. The caravan toured the state visit-

(TURN TO NEXT PAGE, PLEASE)

CUT FLEET SERVICING TIME

BY
20%

with

Ingersoll-Rand AIR IMPACTTOOLS

If you are not now using power tools . . . you can easily cut up to 1/5 from your truck or bus servicing time by putting rugged, dependable Ingersoll-Rand Air Impacttools in the hands of your mechanics. Time study tests show these tools save an average of 20% of the time required to do the more common service and repair jobs by hand methods. You save on labor costs, and also benefit from keeping your service shop "on schedule" and your fleet in top shape.

If you now use power tools . . . it will pay you to check the money-saving advantages of these up-to-date I-R Air Impacttools. Chances are they're lighter weight, easier-to-use, and more powerful than those you now use.

In either case, call your Ingersoll-Rand jobber NOW. He'll arrange a demonstration of the famous I-R Air Impacttool line right in your own shop.

18A-181.

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AIR COMPRESSORS



IMPACTTOOLS
AIR ELECTRIC



IMPACTUTTERS



TIRE TOOLS



AIR STARTING
MOTORS

Originators of Impacttools

AIR & ELECTRIC



Welded Aluminum Tank

By "Sigma" welding tanks of aluminum, Butler Mfg. Co. is getting bigger pay-loads in truck trailers and semi-trailers without exceeding legal limitations. The semi-trailer with aluminum tank at left holds 7950 gal.

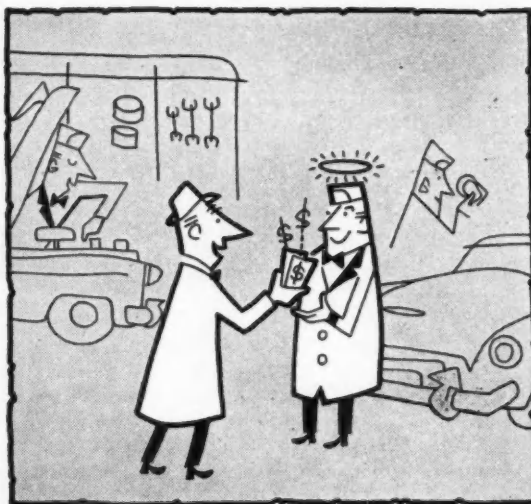
Michigan *Hi-Therm* Engine Bearings

the
bearing
without a
BEEF!



SPECIFY MICHIGAN HI-THERM:
Made to the same original equipment specifications as the bearings we supply to leading car and engine manufacturers.

DETROIT ALUMINUM & BRASS CORPORATION



There's no argument! With Michigan, customer complaints and make-good jobs are eliminated. Rapid, accurate installations are routine.

The Thin-Wall* babbitt bearing which we designed, engineered, developed and patented is proof of the advanced engineering which looks ahead at Michigan.

*U. S. PAT. NO. 2173985



DETROIT
11,
MICHIGAN

Hoosier Public Relations

Continued from Page 123

ing schools, fairs, civic meetings in every major city and town in the state, where it was visited by thousands. The state library, the police, insurance companies, oil companies and manufacturers cooperated to the fullest extent in this enterprise.

Like many such associations Indiana had a traveling driver training school set up in a truck trailer and made accessible to anyone free of charge. People flocked in to check up on their ability to handle an automobile and remembered the source of these facilities. As a result they not only recognized their own shortcomings or skills but learned to appreciate better the problems of truck driving. The trailer was usually set up in a small town near the newspaper office, where the press was invited to make use of the facilities, and—incidentally—any news coverage which was required.

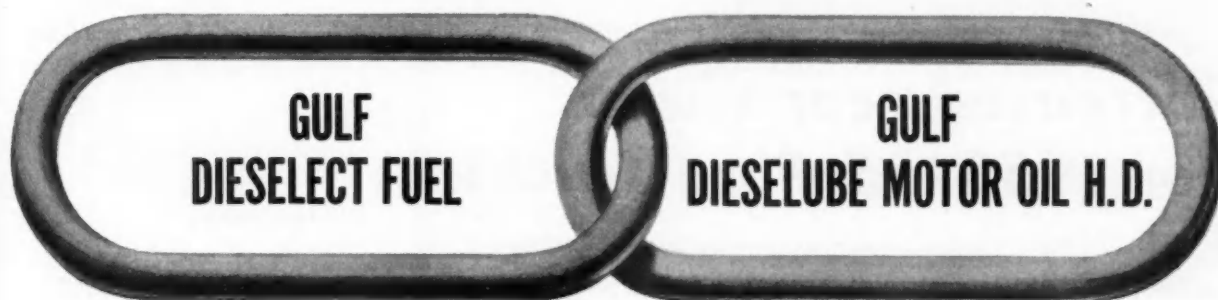
Association headquarters may surprise those who have not fully appreciated the public relations philosophy of the Indiana group. Recently they left the crowded downtown area in Indianapolis, moved to a converted residence on one of the main streets, where facilities resemble those of an art gallery. No part of this business is too small to be considered, says Manager Nicholas: "We provide meeting rooms, literature, information and assistance to anyone who needs it. And we can whip up a cup of coffee too in the kitchen here, when business permits. It's just another service—and that's what we're here for. . . ."

END

Please Resume Reading Page 96



This Fuel-Lubricant Team can cut your Diesel Maintenance Costs



The best fuel choice you can make for your Diesel engines! Here are some of its outstanding advantages:

1. 100% straight run distillate—contains no cracked material
2. Does not form harmful deposits in tanks, filters, and injectors
3. Clean burning
4. High volatility
5. High Cetane Number
6. Low end point
7. Minimum smoke

Because it is so clean burning, Gulf Dieselect Fuel helps prevent fouling of oil control rings and reduces ring sticking. And because of its high volatility, it vaporizes quickly and burns so evenly, so completely you can be sure of cleaner valves.

The ideal lubricating oil for Diesel engines in trucks and buses. Combines quality with economy—both in cost and service.

Gulf Dieselube Motor Oil H.D. is a heavy-duty type oil that not only provides effective lubrication but has the right level of detergency to keep engines clean. It prevents sticking of piston rings, plugging of oil rings, and clogging of oil screens.

* * *

Use Gulf Dieselect Fuel and Gulf Dieselube Motor Oil H.D. in your Diesels for more hauls, fewer overhauls, greater fleet availability, and lower maintenance costs. Give us a chance to prove it by contacting your nearest Gulf office. Or write on your letterhead to Gulf Oil Corporation, 1822 Gulf Building, Pittsburgh 30, Pa.



THE FINEST PETROLEUM PRODUCTS FOR ALL YOUR NEEDS

Shell's Oil Analysis

Continued from Page 82

ADC's requirements are few, and they can be combined in any garage, on any highway, or most anywhere. They are:

1. Two drops of the oil to be tested.
2. A sheet of filter paper.
3. A specially formulized indi-

cator to show acidity or alkalinity.

4. A skilled analyst.

That last "ingredient" is important. Shell emphasizes that while the tests are simple in theory, a safe and complete analysis of an Oilprint can be made only by a trained technician.

The test requires that two drops of oil be obtained from the engine dipstick during, or immediately following, the engine's operation. The drops are released from a standard wire-rod on each of two circles printed on filter paper. After a minute or two—or several hours, if this is feasible (in many cases, the truck will be bedded down overnight anyway)—the drops will have spread into identical patterns. One is read for contamination and dispersancy. On the other, a drop of Shell's color indicator is applied. Then this one is read for alkalinity.

Alkalinity

This color-tested spot forms a halo. If the oil is basic, or alkaline, this halo is a shade of blue or green. But if the oil is acidic, the halo is reddish, yellowish or orange. In either case, if the color is very bright, the acidity or alkalinity is very strong.

Contamination

Water or anti-freeze contamination, which may adversely affect oil additives or result in harmful engine deposits, will reveal itself as the Oilprint takes on a specific pattern. Excessive contamination—soot, dirt, engine debris—will register as a definite pattern when the Oilprint is viewed with transmitted light.

Dispersion

Dispersancy and its partner detergent show up readily in the Oilprint. Because excessive overburdening of these insolubles causes the particles to collect and get caught in the filter, thus removing them from the lubricant, a certain spot pattern will develop. Good dispersancy, on the other hand, is evident when the pattern seems to fade gradually into the white of the paper.

ADC Oilprint Analysis is not a 100 per cent way of spotting all engine troubles, says Shell. "It never will be. When time allows, lab testing is still in some ways superior for measuring used oil efficiency."

END

Please Resume Reading Page 83

for greater safety

increased rear vision for 1953-55 Ford trucks



KD 66

less vibration KD 66 Mirror Arm with Bracket effects clear view. Unique yoke mounting supports both sides of extension arm . . . reduces mirror vibration. Heavy seamless tubing. K-D's customary reinforcement. Bonderized . . . black enamel finish.

easily installed Mounting identical to Ford specifications. Bolts and lock washers included. Fits all Ford trucks . . . left or right side . . . 1953 through 1955. Adjustable extension 17½" to 28".



KD 81
4¼" x 8¼"

mirror heads for Ford trucks

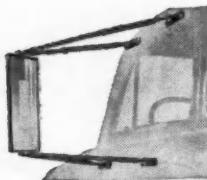
K-D Mirror Heads with replaceable glass protected by rubber guard. Designed for Ford and other mirror assemblies. Silvered surface . . . well gasketed. Ball socket mounting . . . reinforcement plates prevent shearing and vibration wear. Black enamel finish.



KD 104
5½"

K-D's jumbo truck mirrors

KD 71 Rugged West Coast type mirror . . . 6½" x 16¾" . . . fits all trucks and tractors . . . left or right side. Replaceable plate glass . . . silvered and gasketed for protection. Mirror head reinforced top and bottom. Arms and braces of electrically welded seamless steel tubing. Easy adjustment for full view of side and rear of vehicle. Bonderized . . . black enamel finish.



KD 71

The Complete Line These representative mirrors are another part of K-D's complete single-source-service of all automotive Saftee Products.

K-D LAMP COMPANY
1910 ELM STREET • CINCINNATI 10, OHIO
WAREHOUSES: BOSTON • CHICAGO • LOS ANGELES
NEW YORK • PHILADELPHIA • SEATTLE • TORONTO





10

good reasons why

ULTRALITE*

is known as
"the long-haul insulation..."



1955 marks the 10th year of service in trucks and trailers for Ultralite, the long glass fiber insulation. More important, in this decade of rugged, over-the-road service Ultralite has never shown any visible or measurable signs of deterioration!

No other glass fiber insulation can begin to match Ultralite's performance record. It is the only glass fiber insulation that offers conclusive proof that it will not shake down, settle, pack or disintegrate over the years. The secret lies in Ultralite's interlaced long glass fibers that give

it the extra strength and resilience required for severe truck-trailer service.

Ultralite is also the only glass fiber insulation offered in thicknesses from 1/2" for routine jobs to 6" for those extra-low temperature jobs. If you want insulation performance you can count on —and prompt delivery you can count on— specify Ultralite. It costs no more than other insulations, and it's sure to save you money in the long run!

Distributors who carry local stocks of Ultralite are listed in the Yellow Pages in 57 cities. Call your nearby distributor, or write today for 8-page brochure.

*Reg. U. S. Pat. Off.

GUSTIN-BACON

Manufacturing Company



Thermal and acoustical glass fiber insulations • Pipe Couplings and fittings • Railroad gaskets and supplies

230 W. 10th St., Kansas City, Mo.

The Battle of the Tubeless Tire Rim

Continued from Page 71

beefing up of some components is necessary together with changes in disc wheels to accommodate the drop center rim.

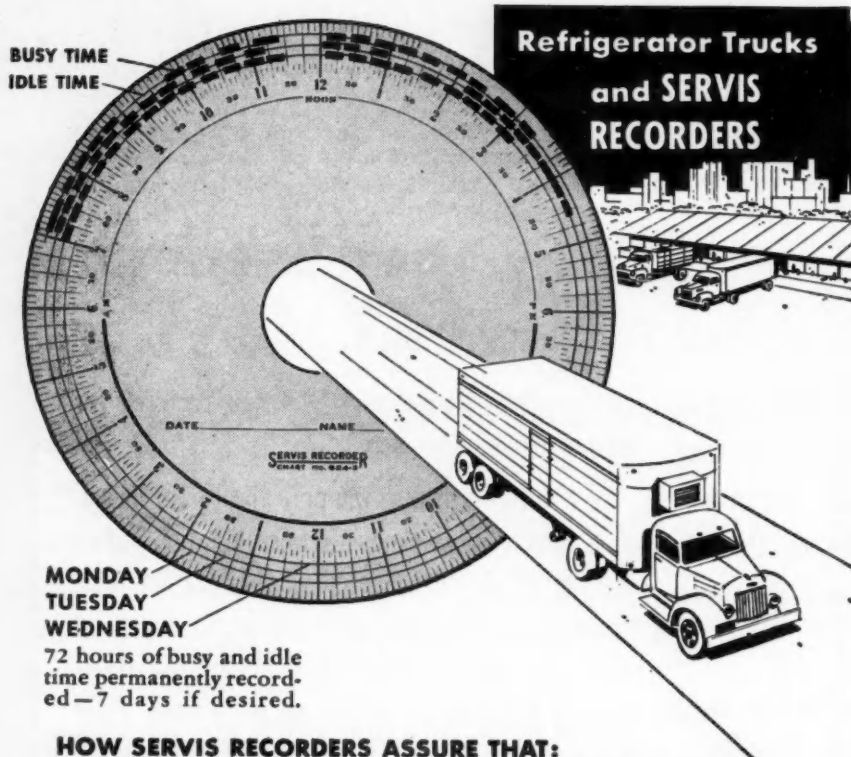
What Type Rim?

There has been a great deal of misunderstanding and confusion

surrounding the tubeless truck tire programs announced by Firestone and Goodyear. Both of these companies already are in the field on a very limited basis with tubeless truck tires in both small and large sizes for changing over existing equipment. However, it must

be remembered that the programs of these two companies are largely in the nature of advanced field testing and promotional effort to sell their particular type of rim.

Currently the big problem in the tubeless truck tire program in larger sizes involves a controversy between Firestone and Goodyear, both rim producers, over the type of rim to be used. In addition, a corollary problem involves an entirely new concept of tire construction to be used with the rim Firestone is advocating.



HOW SERVIS RECORDERS ASSURE THAT:

PERISHABLES DO NOT DELAY

Servis Recorders change the old thought, "Nothing so perishable as profit" into "Nothing So Profitable as Perishables." Leading carriers of perishable freight rely on permanent, easily read Servis Recorders and Charts to trace every delay. In this business, it's imperative to never make the same mistake twice. Servis Recorders help you determine the responsibility for delays.

Drivers? They like 'em, for Servis Recorders defend the man who does his job... pin delays down right to the minute, practically tell you where they occur... loading docks, pile ups, re-fueling, heavy traffic, detours. All are apparent but it's essential to *know* in this business. Charts available for one through seven days. Servis Recorders are compact, highly accurate instruments easily mounted in the cab.

Write today for booklet, "Ten Ways of Getting More Work Out of Motor Trucks," The Service Recorder Co., 1375F Euclid Ave., Cleveland 15, Ohio. Ask about our Turnover Switch. Prevents "turnover" fires.



The Servis Recorder
Tells Every Move Your Truck Makes

Drop Center Rim

Here is what the fight is all about on rim types. Firestone has developed and is championing a one-piece drop center rim (Fig. 1) to be used with a special lower section height tire for brake drum clearance. This rim is characterized by a 15 degree taper and a very low flange. Firestone maintains that with its specially designed tire its rim is adequate for all truck tire sizes up to 11-in. cross-section and that mounting is no particular problem.

It contends further that the assembly is lighter than either the standard tire-tube-and-rim assembly or the multiple-piece rim and tubeless tire advocated by Goodyear, gives greater economy since there are no parts to wear out or break, and is much safer because there are no movable parts to blow off and injure personnel and property.

Three Piece Rim

Goodyear, on the other hand, proposes to use a tubeless truck tire of basically the same section height and proved bead design the industry has been using for years and to mount it on a newly designed three-piece rim sealed with a small rubber "O" ring (Fig. 5). The assembly consists of a flat base rim, flange, locking ring, and a rubber "O" ring seal. Principal advantages claimed by Goodyear are lighter weight, easy mounting in all sizes, and the use of proved tire design.

Both companies are actively promoting their particular type rim but it is interesting to note that (TURN TO PAGE 130, PLEASE)

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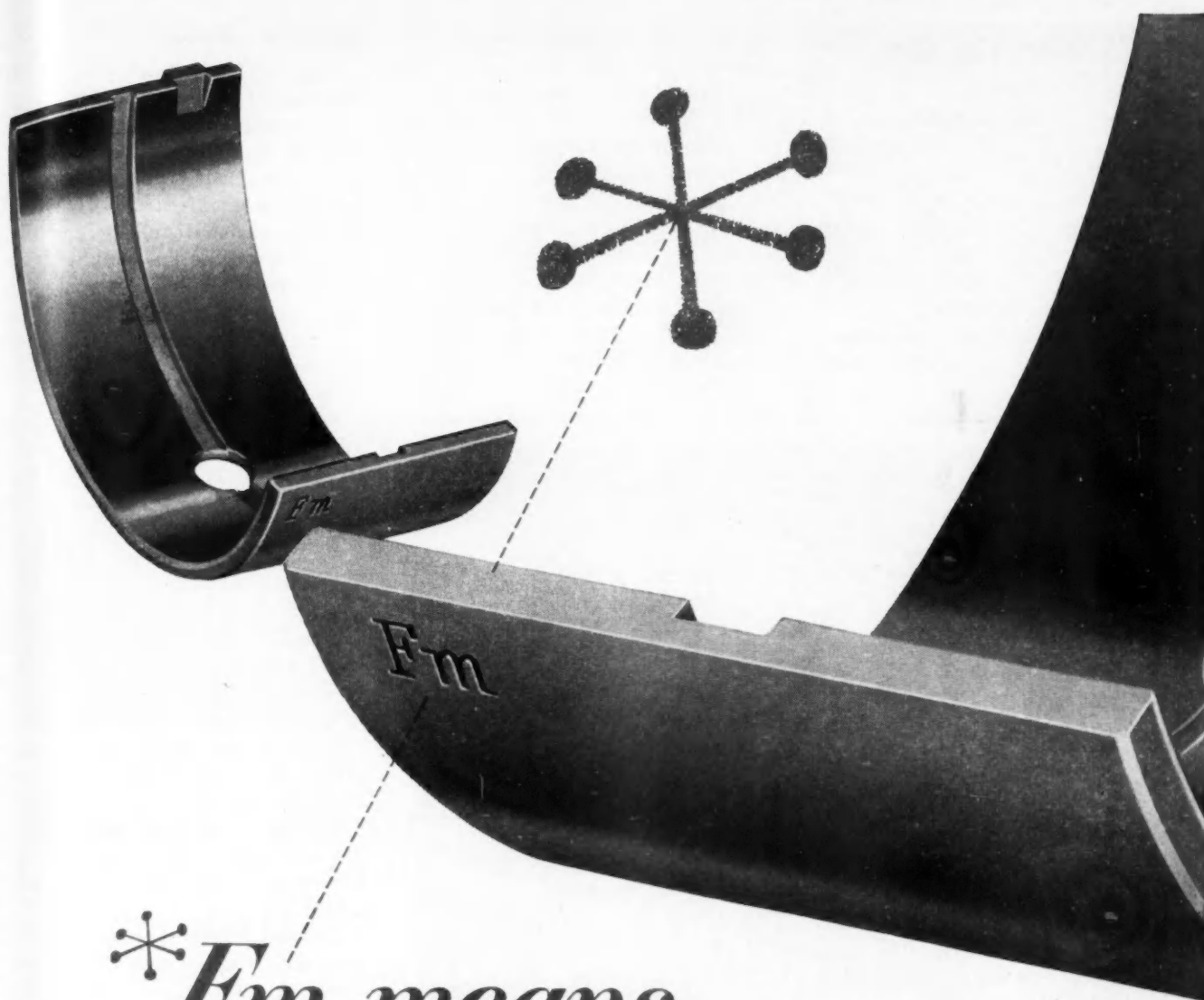
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May, 1955



**Fm means...*

FLEET MILEAGE with Federal-Mogul Engine Bearings

Use the bearings designed and developed for *your* kind of service . . . *fleet* service! Federal-Mogul CP sintered copper-lead engine bearings meet fleet needs best. Nationwide surveys prove Federal-Mogul bearings are the *choice of the fleets* . . . by 2 to 1!

Fleet Mileage means

FEDERAL-MOGUL
Sintered Copper-Lead Bearings



RESEARCH • DESIGN • METALLURGY • PRECISION MANUFACTURING • SERVICE
COMMERCIAL CAR JOURNAL, May, 1955

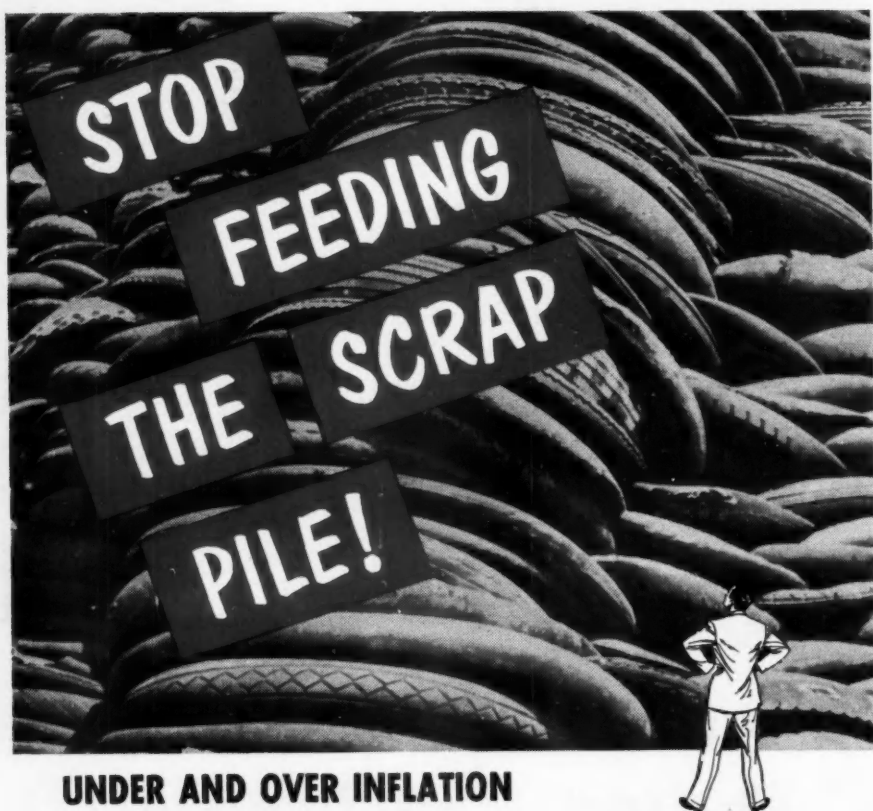
... Tubeless Tire Rim

Continued from Page 128

both are prepared to compromise if necessary. Goodyear also has a drop center design with a special low profile tire for sizes up through 10.00, and just to balance off the equation Firestone has a multiple piece rim using an "O" ring seal

which it has tested successfully in large earth-moving tires.

So far as other major tire companies are concerned, they are at the moment marking time to see which way the rim fight is going. As soon as a definite decision is made they will prepare to produce the type of tires the truck makers and the trucking industry want. Obviously it is going to take some time after a decision is reached for all the companies to tool up.



UNDER AND OVER INFLATION WRECK ONE TIRE OUT OF EVERY 6

Improper inflation of tires can rob you — because it shortens tire life, wastes useful mileage, raises fleet cost-per-mile unnecessarily. Unnecessarily — because ECO tireflators give you constant, accurate delivery of desired pressures to insure all-around proper tire inflation at any pressure from 5 to 110 pounds. Economically, too, because in most cases, first cost of an ECO tireflator is its last cost. Ask your John Wood Representative for details about ECO remote tireflators and ECO islanders for tire-saving control of inflation pressures.



MODEL 97 ECO tireflator for mounting on wall, pillar or post. Fits anywhere to save your time and money.



JOHN WOOD COMPANY

BENNETT PUMP DIVISION Muskegon, Michigan

What Tire Design?

One of the complications centering around the drop center design is the controversy over whether or not the so-called "short sidewall" tire to be used with the drop center rim is equal in all respects to the conventional full height tire. The shorter section height is required in order to maintain brake drum clearances for the well in the rim and at the same time maintain the same outside diameter for vehicle clearances.

Firestone says that it has about 4-million miles of testing behind its newly designed tire and that performance characteristics are at least equal to conventional tires. The company contests the term "short sidewall," pointing out that while the tire is shorter in section height, the reduction is made in the bead area and the actual sidewall height from the top of the rim flange to the top of the tire is practically the same as in other types. It claims further that because of the better fit to the rim its tubeless tire has more natural flex and under testing actually has shown improved flex life and cooler operation.

Skeptics of the shorter tire, however, say that because of the lower bead, the lower area of the tire must be much stiffer and consequently will run hotter and have poorer flex characteristics. One large company says that it has not yet been able to build such a tire that will give equal performance with conventional tires. The spokesman adds, however, that he does not imply that it cannot be done and that since Firestone has had a long lead in developing the special tire it may have developed materials and techniques that will produce an entirely adequate tire.

The tire has been referred to by some tire companies as an "85 per cent" tire but Firestone apparently is willing to stake its reputation on its claims that the tire is 100 per cent.

... and Mounting?

When it comes to the question of whether or not the larger sizes can be easily mounted on the drop center rim the argument gets hot. (TURN TO PAGE 132, PLEASE)

Rug

The Ansul beating of extinguisher test without estimate the hard road

Ansul's agent used of engine

The vibra 10-pounder

COMMERCIAL



Rugged 10-lb. Ansul fire extinguisher built for truck protection

The Ansul 10-pounder is *designed and built* to take the beating of year-in, year-out truck use. This new extinguisher survived a 250-hour vibration-impact test without a single part failure. Ansul engineers estimate that this test was the equivalent of 10 years' hard road use.

Ansul's "Plus Fifty," the dry chemical extinguishing agent used in the 10-pounder, makes short, fast work of engine fires, tire and brake lining fires and cargo

fires. The high fire killing rating (B1, C1) of this unit gives full fire coverage the instant it's needed.

A serious truck fire results in lost operating revenue, makes it difficult for you to provide "on-schedule" service for your customers. Your local Ansul Man can show you how a fire protection plan for your fleet can avoid costly truck and cargo losses and help to maintain your reputation for dependable service. Adequate fire protection is the best fire insurance you can buy.



The vibrator-impact machine puts Ansul 10-pounder through 250-hour torture test.

Call the Ansul Man!

Get in touch with your local Ansul Man through the "yellow pages" or write Ansul Chemical Company, Fire Equipment Division, Dept. F-66, Marinette, Wisconsin. Write Ansul for your copy of new Fire Equipment Catalog.



ANSUL

... Tubeless Tire Rim

Continued from Page 130

Firestone says that with proper techniques, tools, and lubrication, sizes as large as 11.00 can be mounted without difficulty (Figs. 2 and 3). It says the use of a low single bead area provides adequate flexibility for mounting.

Goodyear, on the other hand, says that putting a 10 or 11-in. tire on a drop center rim is a man-sized job. Apparently the disagreement here carries over into a basic difference of opinion on single versus dual bead construction. Goodyear still maintains the dual bead (Fig. 6) is necessary for adequate strength, whereas Firestone claims that its construction using single bead is adequate.

So far as interchangeability in

existing fleets, both types of rim can be made demountable on cast wheels. The drop center type, however, requires a special adapter which admittedly adds some weight. This interchangeability does not mean that the operator can mount a tubeless tire on a conventional rim or vice versa but rather that the tubeless tire and rim assembly will interchange with the conventional tire and rim assembly on the cast wheel.

Who Should Decide?

There even is considerable disagreement as to who should make the decision on the type of rim. Tire companies would like to have the customers—primarily the truck manufacturers—make the decision. At least one truck company says that it would like to have the tire industry and/or the Tire and Rim Assn. come up with a definite recommendation that all truck makers and fleet operators can follow. About the only solid conjecture at the moment is that a compromise may well be worked out in which sizes up to 9.00, 10.00, or possibly even 11.00 will go the drop center route with larger sizes using the multiple piece rim with "O" ring seal.

There is general agreement that it would be highly undesirable to have two different tubeless truck tire programs in any one size range. Consequently it is a good bet that the tire and truck industries will get together on one type rim in each size classification.

What About the Economics?

Economics, of course, will dictate how fast and how far the industry switches to tubeless truck tires. Even at the outset of the program tubeless tires will cost no more than tire-tube-and-flap assembly and some tire people already have indicated that as production and technical developments increase it is not at all unlikely that a tubeless tire may be cheaper than a conventional tire tube and flap. Rim cost also is no greater than with a conventional rim.

So far as changeover of existing equipment is concerned, this again will be dictated by the economics (TURN TO PAGE 134, PLEASE)

ACCIDENTS CAN COST !

- LIVES
- MONEY
- LAWSUITS



Speed Kills



Governors

REDUCE


Accidents

KING-SEELEY CORPORATION
ANN ARBOR, MICHIGAN



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Identify the Voltage of the Bulbs on Your Trailers...and the Voltage of Your Tractors!
ELIMINATE BLOWN FUSES...BLOWN BULBS...DIMMING




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ILL.

CAUTION

THIS TRAILER IS EQUIPPED WITH

12 VOLT BULBS

IN THE INTEREST OF SAFETY
THIS DECAL HAS BEEN FURNISHED BY
BERG MANUFACTURING & SALES CO.
Manufacturers of
CONNECTORS, CABLE & SAFETY EQUIPMENT



MFG. & SALES
CO., INC.
CHICAGO 16,
ILL.



6 Volt Decal
for Trailers



12 Volt Decal
for Trailers

Available in



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for Tractors



12 Volt Decal
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Printed in Bright Yellow and Black for Ready Identification. Easily and Quickly applied to Any TRAILER
Near Its Wiring Outlet...or to Any TRACTOR!

AVAILABLE FREE As a service to the Trucking Industry and in the interest of public safety by **WRITING DIRECT TO Berg!**



MANUFACTURING & SALES CO., INC.
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Manufacturers of the Berg SHUR-LOCK, ROYAL, UNIVERSAL and DELUXE TRACTOR-TRAILER CONNECTORS, VARI-VOLT and REDUCT-O-VOLT VOLTAGE CONVERTERS, DUO and QUAD RESISTOR CONTROLS, SAFE-AIR LOW PRESSURE INDICATORS, SHO-GLO LAMPS, TRAILER LIGHTING CABLES, LOOM.

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Gentlemen:

Please send me the following SAFETY DECALS, without cost to me.

DECAL	AMOUNT	DECAL	AMOUNT
6 Volt for Trailers.....		6 Volt for Tractors.....	
12 Volt for Trailers.....		12 Volt for Tractors.....	

COMPANY NAME.....

ADDRESS.....

CITY, ZONE, STATE.....

REQUESTED BY.....TITLE.....

We Own _____ Tractors. We Own _____ Trailers.

COMMERCIAL CAR JOURNAL, May, 1955

Foote Lithium Does It!



Connecticut Railway and Lighting Doubles Mileage Between Wheel Lubes

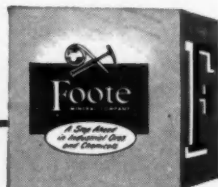
... and that's only part of the story of lithium base multi-purpose grease used on 297 buses rolling for Connecticut Railway and Lighting Co., Bridgeport, Conn.

Experience has proven that this *ONE* lithium grease also does a top job on chassis lubrication. Spring pins, shackles, steering mechanisms, king pins, all show increased life because of lithium lubrication.

And this is not just a test—C. R. & L. has been using lithium multi-purpose grease for five years! Lithium grease takes all types of weather—heat, cold, rain, mud—and keeps them rolling with absolute minimum maintenance and servicing down time.

It will pay you to contact your grease supplier for lithium base, multi-purpose grease.

We will be glad to send you a copy of "Front Wheel Bearing Lubrication," an N.L.G.I. report.



LITHIUM HYDROXIDE
FOR INDUSTRY

FOOTE MINERAL COMPANY

445 Eighteen W. Chelton Bldg., Phila. 44, Pa.

RESEARCH LABORATORIES: Berwyn, Pa.

PLANTS: Exton, Pa.; Kings Mountain, N.C.; Sunbright, Va.

... Tubeless Tire Rim

Continued from Page 132

of the particular fleet owner's individual operation. Where weight saving is particularly important and when the down-time occasioned by tube and flap trouble and punctures is an important consideration it may well prove profitable for the operator to make the change-over on existing equipment.

In general, however, it now appears that tubeless truck tires for the most part will find their way into the fleets on new equipment.

Fig. 7 Size Comparisons

Present Conventional	Goodyear Three-Piece Tubeless	Goodyear Drop Center Tubeless	Firestone Drop Center Tubeless
7.00-15 15" Comm.	8-16	8-17.5	7-17.5
7.00-16 7.50-16	8-16	8-17.5	8-17.5
7.50-15			8-17.5
7.00-17 7.50-17	8-18	8-19.5	8-19.5
7.00-18 7.50-18	8-18	8-19.5	
6.50-20 7.00-20	7-21	7-22.5	7-22.5
7.50-20	8-21	8-22.5	8-22.5
8.25-20	9-21	9-22.5	9-22.5
9.00-20	10-21	10-22.5	10-22.5
10.00-20	11-21	11-22.5	11-22.5
10.00-22	11-23	11-22.5	
11.00-20	12-21		12-22.5
11.00-22 11.00-24 12.00-20 12.00-24	12-23 12-25 13-21 13-25		
13.00-20 13.00-24 14.00-20 14.00-24	14-21 14-25 15-21 15-25		

Another result of an industry switch to tubeless truck tires will be a reduction in the number of sizes. In this respect, at least, there appears to be a fairly uniform agreement between the two principal contenders. Comparisons and replacements under the new tubeless tire program of both Firestone and Goodyear are shown in Fig. 7.

(TURN TO PAGE 138, PLEASE)

COMMERCIAL CAR JOURNAL, May, 1955

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8-22.5

9-22.5

10-22.5

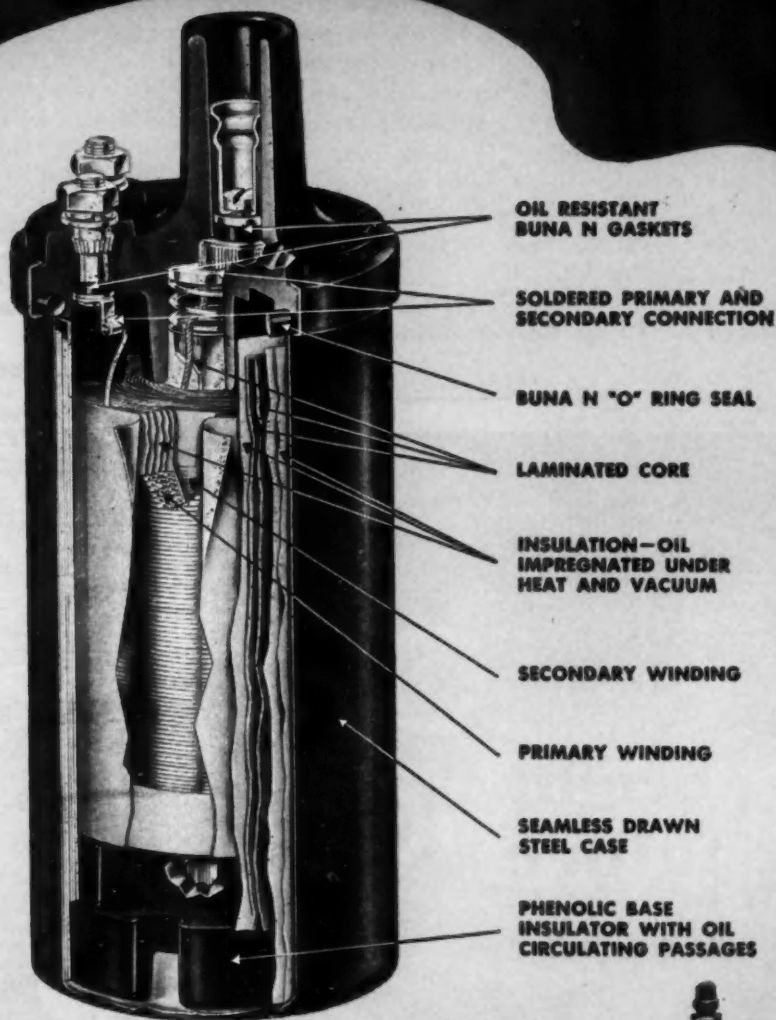
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May, 1955



All ECHLIN coils for modern cars are oil filled



ECHLIN



Ignition
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 ELECTRICAL PARTS

ECHLIN MANUFACTURING COMPANY • NEW HAVEN 5, CONN. • U. S. A.

... Tubeless Tire Rim

Continued from Page 134

Longer Mileage

Aside from whatever weight savings may accrue, it generally is agreed that tubeless tires give greater mileage because they run from 10 to 20 degrees cooler.

Down-time is greatly reduced

because of the puncture sealing tendency which prevents or greatly slows the loss of air in all but major punctures enabling the operator to complete the run and repair the tire at the next terminal. In addition, repairs are much easier because—except for major ruptures—the tires can easily be repaired right on the wheel with a plug kit.

END

Please Resume Reading Page 72



Here's the "come on" line of Cap Screws and Finished Hex Nuts that means new profits for automotive dealers and repair shops.

The famous "original equipment" Lamson 1035 High Tensile Heat Treated Cap Screws have a brand new zinc and chromate plated finish. It is rust resistant and combines strength

with attractive appearance. Packed in an aluminum foil box, the "Silver Line" comes in fine or coarse thread in sizes from $\frac{1}{4}$ " x $\frac{1}{2}$ " through $\frac{1}{2}$ " x 2" —68 items in all including fine and coarse thread nuts to match. Simply specify "Silver Line" on your orders or write for a net price schedule today.



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CAP SCREWS



MILLED STUDS



WHEEL BOLTS



SEMI-FINISHED NUTS



TAPPING SCREWS

ONE OF THE WORLD'S LARGEST MANUFACTURERS OF AUTOMOTIVE FASTENERS

Fleet Training Courses

HERE is 1955's calendar of fleet training courses. Most of them, as in the past, are given by local colleges and universities and are held on the college campus.

Unless otherwise noted, the courses listed below are full time, day courses. For complete addresses to write to for full information about the courses, see COMMERCIAL CAR JOURNAL'S November, 1954, issue, page 237.

Fleet Supervisor Courses

May 23-27—University of Georgia.

June 20-24—University of Virginia.

June 20-24—Northwestern University.

Aug. 22-26—University of Kentucky.

Sept. 12-16—Pennsylvania State University.

Sept. 19-23—Purdue University.

Oct. 31-Nov. 4—University of Minnesota.

Nov. 14-18—University of Michigan.

Driver Training

North Carolina State College (one month long courses starting May 30, July 4, Aug. 1, Sept. 3, Oct. 3, Oct. 31, Nov. 28).

Terminal Management

Oct. 11-13—Pennsylvania State University.

Dec. 7-9—University of Tennessee.

Top Management Conferences

Sept. 30—Pennsylvania State University.

Fleet Maintenance Courses

Oct. 10-14—Rutgers University.

Oct. 10-14—Tulane University.

Nov. 1-3—Oregon State College.

Nov. 7-9—Montana Motor Transport Assn. (Billings).



"I hate driving during the rush hour!"

COMMERCIAL CAR JOURNAL, May, 1955



with Controllable Power...
**you set the wrench
 to suit the job**

Only Chicago Pneumatic Air Impact Wrenches have Controllable Power... the feature that permits "power presetting." With Controllable Power you set the wrench to full power for removing those obstinate, rusted wheel nuts. Then you can cut back the wrench's tightening action to run on nuts to factory recommended tightness... you give them just what they need... no more, no less.

You'll find you can cut nut running time as much as 75% by using CP Air Impact Wrenches.

Small in size and easy to operate, they can be furnished with attachable angle heads for close quarter work and in $\frac{1}{2}$, $\frac{3}{4}$ and 1" square drive capacities. They're ideal for road service on your air-equipped truck. You'll save even more time when you team them up with the CP Pneu-draulic Truck Jack and Bead Breaker. For a demonstration, call your nearby CP automotive jobber today or write direct to: *Chicago Pneumatic Tool Company, 8 East 44th Street, New York 17, N.Y.*



Chicago Pneumatic

AIR AND ELECTRIC IMPACT WRENCHES • PNEU-DRAULIC TRUCK JACKS AND PUMPS • ZIP-GUNS • BEAD BREAKERS

COMMERCIAL CAR JOURNAL, May, 1955

Truck Drivers Go To College

Continued from Page 77

cult maneuver was pretty pathetic. Instead of going this-a-way, the hind end of the trailer was going that-a-way. But an hour later even the most casual visitor could measure the improvement, and a week later you could be sure that he

could handle the rig with the best of them.

Are They Good?

One of the questions we wanted answered most was hard to get at Raleigh. It was this one: "How

are the graduates doing?" We knew that virtually 100 per cent—all who actually wanted to drive as a profession—have been absorbed by the industry. But how did they stack up with other drivers? We finally got the answer 100 miles away in Winston-Salem a few days later.

Said W. T. Gowens, safety supervisor and personnel director of Pilot Freight Carriers and one of the pioneers in developing the school: "For the first six months of employment, our college trained drivers do not have quite as good a record as other new employees who have been driving professionally for a number of years. The reason for this is obvious. Most of the new graduates have never driven a truck before and it takes a little while to gain actual experience on the road. That's why we team them up with without exception to older drivers. But after the first six months our records prove that the college-trained drivers make much better drivers than the old-timers. I believe the difference can be pinpointed mostly in the one word 'attitude'! Properly schooled and properly trained in the fundamentals of good driving procedure, the college-trained students invariably come through better in the long run."

Safer Trucking at Lower Cost

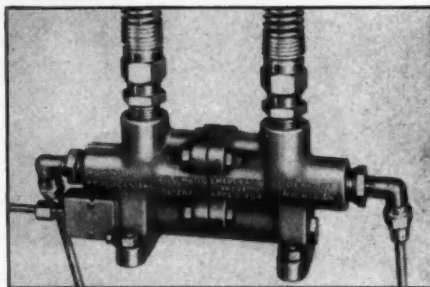
Automatic Tractor-Trailer Breakaway Valve

Conforms with ICC Regulation 193.43

The Robinson Breakaway Valve offers new safety and convenience. Besides the automatic sealing off of the tractor's air system, should the trailer break away or otherwise lose its air pressure, this valve makes other operations much easier.

The operator can charge the trailer air lines (after a new hook-up or emergency stop is made) without leaving the cab, using an instrument panel control. The trailer emergency brakes may also be applied with this control—no need to wait until loss of precious air pressure does this automatically. Parking and hooking up on a grade is made easy with the Robinson valve.

This valve contains no fragile diaphragms, and has only two moving parts. It requires no secondary tank, check valve, or extra piping. Shut-off



cocks are eliminated. List price, F. O. B. Detroit, is only \$25.00. See your local jobber and ask for it by name—"Robinson", an old and respected name in the automotive safety world.

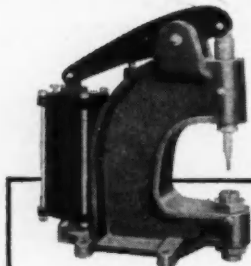
Triple-Safety Low Air Pressure Signal

Conforms with ICC Regulation 193.51



Unlike other signals that warn of low air pressure, the Robinson signal starts to tell the driver that he's losing air pressure long before the minimum necessary to stop is reached (that's when other signals begin to operate). When pressure begins to fall, a red Lucite rod starts to appear, increasing to its full length, at which time a minimum of 50 lbs. remains.

The signal rod appears in the operator's line of vision and its bright color is intensified by daylight or oncoming headlights. An electric light also illuminates the signal rod and the word STOP is stamped on it in luminous letters (to warn in the event of light failure). This signal is actuated by the very pressure it is checking on, so it can not fail to operate. List price, F.O.B. Detroit, is only \$6.00. Contact your jobber or write to us.



Have you seen the Robinson Air Powered Riveter? Using only 100 psi, its two tons of pressure will rivet or de-rivet any brake shoe in your shop. Air cylinder construction (no diaphragms!) means long rugged service. Complete line of punches and tools also available. Write for more information, giving your jobber's name.

Robinson Products
INCORPORATED

16550 WYOMING AVE. • DETROIT 21, MICHIGAN

Driving in 37 States

While most of the 2000 graduates have so far been absorbed by carriers in the Carolinas and nearby states, the alumni association now includes drivers from 37 states and six foreign countries. After six years of operation, the school's reputation is better than ever. Another large carrier on the eastern seaboard told me recently that he didn't believe the school could turn out as good all-round drivers as he could find on the open market of experienced men. So he resisted the school for its first five years. But in January of this year he employed ten new drivers and immediately assigned all of them to the school with tuition at least partly paid by the company.

This is unusual, and normally
(TURN TO PAGE 144, PLEASE)

COMMERCIAL CAR JOURNAL, May, 1955

Now 1955 ATA NATIONAL TRUCK SAFETY CONTEST

A safe fleet saves money and boosts profits, so enter your fleet today. There are sixteen classifications with both local and long distance divisions, so you compete with other fleets on an equal basis. Promote safety in your fleet the easy way, fill out the contest coupon below and mail it today! Entry deadline is June 30, 1955.

THE ELECTRIC AUTO-LITE COMPANY

Spark Plug Division

Toledo 1, Ohio

Toronto, Ontario

AUTO-LITE MAKES A COMPLETE LINE OF RESISTOR, STANDARD, TRANSPORT AND MARINE SPARK PLUGS FOR EVERY USE



TO THE WINNERS!

Safety Directors of winning fleets will be presented with a Remington Deluxe Electric Shaver with adapter to plug in lighter outlet for automotive use, plus engraved plaque with winner's name. Drivers of winning fleets will receive bill-fold-size Safety Driving Certificate.

THE ELECTRIC AUTO-LITE COMPANY

Spark Plug Division, Toledo 1, Ohio

Please give us full information on how we can enter the American Trucking Associations National Truck Safety Contest to promote greater safety in our fleet. We understand no special records, fees or memberships are required.

1955 AMERICAN TRUCKING ASSOCIATIONS SAFETY CONTEST COUPON

NAME _____
COMPANY _____
ADDRESS _____

COMMERCIAL CAR JOURNAL, May, 1955

Truck Drivers Go to College

Continued from Page 140

students are expected and do pay either from accumulated savings or from future savings. As a case in point, still another carrier told me that he had an application from a young man with a clerical job. He wanted to become an over-the-road truck driver, had heard

about the school in Raleigh. He went to a carrier, procured the promise of employment as a driver if he passed the college course. Then he went back to his local bank, presented evidence of past and future earning potential, floated an immediate loan for the full tuition including incidental expenses of the course. P.S. He got his job.

After six years of operation, the course runs with all the precision

of any college extension course.

The Early Days

Just who gets credit for the course is difficult to assign. But certainly among the pioneers are Tom Outlaw, executive vice president, North Carolina Motor Carriers Assn., and E. W. Ruggles, director of extension courses for North Carolina State College. Together they discussed the needs and the problems involved in setting up a college extension course in the then wholly new venture of truck driver training. Soon the matter became a project for the State Association's Council of Safety Supervisors.

Today, there is a permanent committee of three men who advise on the school's destiny. They include Gerry Reid of Central Motor Lines, William L. Carter of Johnson Motor Lines, and Claude Schlagenhauf of Akers Motor Lines. But in the early days, two important pioneers were Carlton Alexander of McLean Trucking Company and W. T. Gowens of Pilot Freight Carriers.

The school started almost where it is today, but there was a scarcity of both classroom and housing facilities, and the outside driving course was rather hit or miss.

With the tremendous shortage of drivers in the Winston-Salem area, the school later moved there and was housed in temporary facilities offered by Pilot Freight

(TURN TO PAGE 148, PLEASE)

THE extensive, diversified plant facilities of the Eberhard Manufacturing Company afford the greatest opportunity for the design and manufacture of the **MOST COMPLETE LINE** of TRUCK BODY HARDWARE AVAILABLE.

Better Truck bodies are built with **E** "Purpose-Tested" Hardware.

Write for the Catalog

EBERHARD *Long Run*
TRUCK BODY FITTINGS

EBERHARD MANUFACTURING CO.

Division of the Eastern Malleable Iron Co.

EVARTS AVENUE

CLEVELAND, OHIO



COMMERCIAL CAR JOURNAL, May, 1955

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This new Spic
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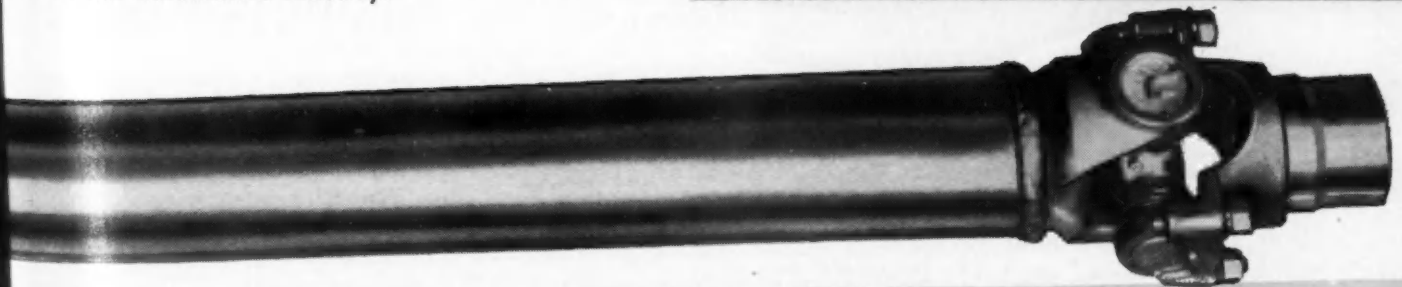
the top 5 Truck Producers!

In the merciless testing of new developments for the automotive industry, the new Spicer Center Bearing Mounting has emerged with outstanding records of performance

... and quick acceptance as standard equipment on leading makes of trucks!

This new Spicer mounting for propeller shafts is an exceptional engineering advancement. It embodies a revolutionary combination of ball bearing and low-frequency rubber. This achieves remarkably low vibration transmissibility at driving speeds. It dampens . . . deadens . . . absorbs nearly all the vibration disturbances transmitted to it from the drive line.

The Spicer Center Bearing Mounting is available for original truck equipment, as an integral part of the Spicer Propeller Shaft assembly. It is another Spicer engineering "first," typical of Spicer pioneering that has been dedicated to the advancement of the automotive industry.



TOLEDO 1, OHIO

SPICER PRODUCTS: TRANSMISSIONS • UNIVERSAL JOINTS • PROPELLER SHAFTS • AXLES • TORQUE CONVERTERS • GEAR BOXES • POWER TAKE-OFFS • POWER TAKE-OFF JOINTS • RAIL CAR DRIVES • RAILWAY GENERATOR DRIVES • STAMPINGS • SPICER and AUBURN CLUTCHES • PARISH FRAMES

"Bigger Pay Loads"



with FOSTER-BUILT DRY ICE BUNKERS

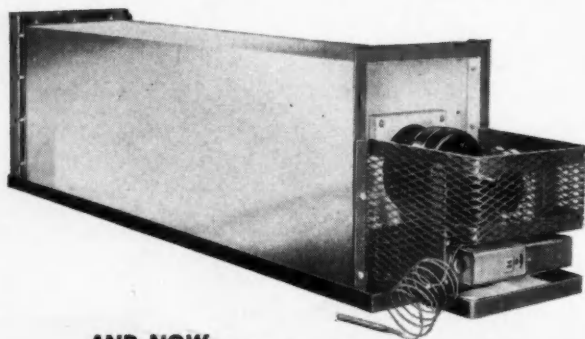
Just look at what users have to say:

"Since we installed Foster-Built Bunkers in our fleet, our profits have increased steadily, because our payloads are bigger. NOW we get more efficient, low-cost service than ever before. Our trucks are leased from* Hertz Stations, Inc., and savings in our operation are a 'must.'" S. A. Alexander, President, South Chicago Packing Company, Chicago.

"We have Foster-Built Bunkers in many of our trucks and have found them simple to install, and virtually no maintenance is required... which is important in a large truck rental business." Joseph Stedem, Executive Vice-President in Charge of Sales, Hertz Stations, Inc., Chicago.

Foster-Built receives letters like these every day from satisfied users, telling how much they like the efficient, reliable truck refrigeration that Foster-Built Bunkers give them.

LOW COST TRUCK REFRIGERATION



The Frigi-Matic Temperature Control is also available as an accessory for installation with your present Foster-Built Bunker. It will pay for itself in a short time!

AND NOW...

Here's another Foster-Built First in truck refrigeration... the New FRIGI-MATIC Automatic Temperature Control Bunker! Here's the

answer for increased payloads and profits. Frigi-Matic positively maintains constant temperatures, and has a range from 0° to 70°F.

Get the facts: Phone MOnroe 6-6880

Foster-Built
DRY ICE TRUCK BUNKERS

Foster-Built Bunkers, Inc.
Dept. CCJ-5, 757 W. Polk Street, Chicago 7, Ill.

Gentlemen: Please send information on:

- ☐ Frigi-Matic Dry Ice Bunker
- ☐ Dry Ice Warehouse List
- ☐ Complete line of Foster-Built Bunkers

Name.....

Address.....

City..... Zone..... State.....

Truck Drivers Go to College

Continued from Page 144

Carriers. Early in 1954, the school moved back to Raleigh, having fulfilled the immediate need for college-trained drivers in the Winston-Salem area. This time both classrooms and dormitory facilities were made available. The field course was first operated at the state fair ground but later moved to the old municipal airport, now partially inactive, at the south side of town.

Adult Driver Course

Not all of the school's activities are confined to Raleigh. For instance, last fall Edward Scheidt, North Carolina Motor Vehicle Commissioner, conceived the idea of an adult driver course available to the general public. John Akers, president of Akers Motor Lines in Gastonia, N. C., jumped at the idea, offered company classroom and instructor manpower on a no-cost basis to the citizens of Gastonia, for a 20-hour course. On consecutive Tuesday nights for five weeks these salesmen, housewives, textile engineers, cab drivers, and people from all walks of life benefited materially from this "refresher" type of course.

Does the North Carolina State College School for Truck Drivers tie in? Very definitely, for Director Russell M. Haynie, Jr., supplied the complete "syllabus" for the course and again Extension Course Director Edward Ruggles came through with the know-how on setting up the various procedures. While great credit goes to Akers for sponsoring the course without cost to fellow Gastonians, it was the state college that provided the know-how and the co-operation needed to see it through.

To a hardworking bunch of early pioneers and a capable full-time staff goes credit for an extremely smooth running organization that is providing extremely well-trained drivers for the field of highway transportation.

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AL, May, 1955

THE SATURDAY EVENING POST

77

Now—your car can have modern power brakes!



NOTE: "Spectacle test" above—proves easy action of MoPar Power Brakes! To demonstrate the small amount of pressure required on the brake pedal to bring car to stop—eyeglasses were first placed on the pedal. Eyeglasses were not damaged.

SAFE—WITH BRAKE REPLACEMENT PARTS THAT ARE ENGINEERED FOR YOUR CAR!



For cooler operating, safer brakes, get MoPar Heavy-Duty Brake Fluid!

There is far less chance for brake "fade" and failure due to overheated brake fluid when you use MoPar Brake Fluid. Reason is, boiling point of MoPar Brake Fluid is almost twice that of ordinary brake fluids.



**MAY IS NATIONAL SAFETY MONTH—
BE SURE TO GET A MOPAR SAFETY CHECK!**

MoPar is the name of parts and accessories designed especially for Plymouth, Dodge, De Soto, Chrysler and Imperial cars, and Dodge "Job-Rated" trucks.

New low-cost MoPar Power Brake Unit gives faster stops with half the effort—and it's easy to install!

If your car is "dated" for lack of power brakes, here's good news for you.

Now, you can enjoy the safety and ease of genuine power brakes just like those offered in the '55 cars.

Like thousands of other motorists, you'll find that a MoPar Power Brake Unit enables you to make the fastest, smoothest, most comfortable stops—without the effort you'd normally use!

Today's finest power brakes are yours at a price to fit your modest purse. Get your MoPar Power Brakes from your nearest Plymouth, Dodge, De Soto or Chrysler dealer or better yet, shop anywhere.

MOPAR

PARTS DIVISION • CHRYSLER CORPORATION • DETROIT 31, MICHIGAN

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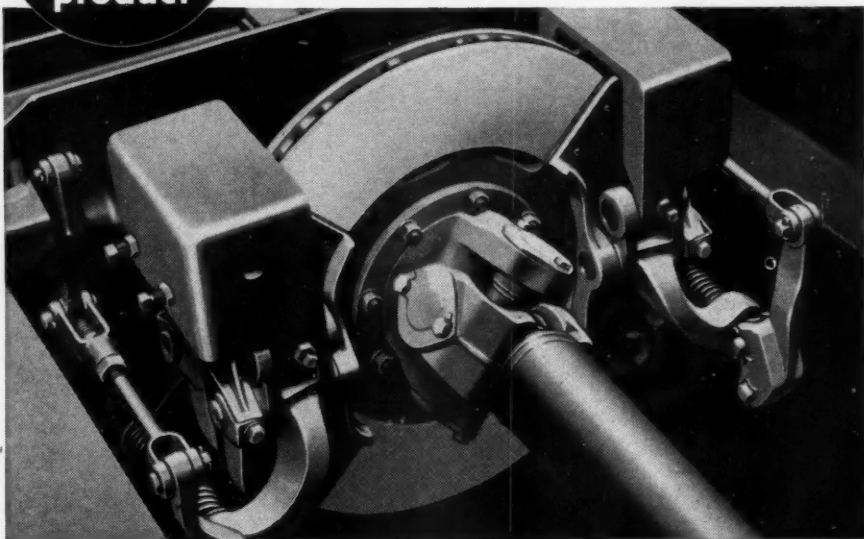
Available at special fleet rates from your nearby Plymouth, Dodge, De Soto, Chrysler dealer or MoPar parts wholesaler.

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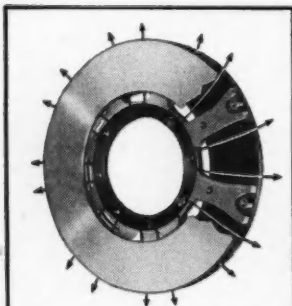
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Real Emergency Braking...Smooth,
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• The terrific heat generated in braking cuts lining life. TRU-STOPS quickly dissipate this heat. Most of the disc is exposed to the air even during braking. And a cooling jet of air circulates through the disc, prolongs lining life.

Real Emergency Braking. TRU-STOPS are real emergency brakes—not just “parking brakes.” They serve as auxiliary brakes on long down-grades and can bring the vehicle to a smooth, quick stop if service brakes suddenly fail.

In fact, TRU-STOPS can do this and more. They can handle the vehicle with safety so it can be removed from the road.

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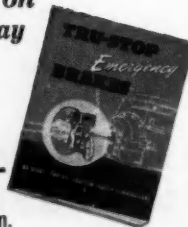
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Fleetman's Library

Continued from Page 92

Hydraulic brake parts made by Master Parts Division, Airtex Products Corp. are described in this new catalog. Included are exploded views of assemblies. For a free copy circle L 7 on the postcard on page 88.

Brake shoe cleaning and surfacing with Wheelabrator machines are described in this attractive folder. Data is included on savings that are possible using the equipment. Circle L 8 on the postcard on page 88 for your free copy.

New FWD heavy-duty trucks and fire engines are described in a series of fully illustrated booklets available from Four Wheel Drive Auto Co. For heavy-duty trucks in the 14,500 to 17,500-lb GVW class, circle L 9 on the postcard on page 88. For 22,000 to 28,000-lb GVW units, circle L 10, and for 32,000 to 36,000-lb GVW units, circle L 11. New fire trucks include the Model No. S-500 with a 175-bhp engine and 500 gpm pump (circle L 12 for a free copy of descriptive folder) and the Model No. S-750 with a 212-bhp engine and 750 gpm pump (circle L 13 for a descriptive folder).

Reconditioned Spicer Model No. 916 converter roller clutch outer races are described in this Transit Maintenance Topics bulletin published by Trans-Main Corp. Circle L 14 on the postcard on page 88 for your free copy.

Painting instructions, including removal of old finish, preparation of various metal and wood surfaces as well as canvas and composition surfaces, thinning, baking and metal cleaning, using Ditzler Color Division, Pittsburgh Plate Glass Co. products are covered in this 4-page folder you can get by circling L15 on the postcard on page 88.

Fire hazards index, made available by Buffalo Fire Appliance Corp., lists alphabetically substances subject to fire, tells the proper extinguishing method to use to put them out. Circle L 16 on the postcard on page 88 for a free copy.

“Flaw Location by Dye Penetrants” is the title of a new booklet issued by Turco Products, Inc. It tells how Turco's dye process finds flaws in metals, such as engine blocks. Circle L 17 for your free copy of this bulletin.

END

Please Resume Reading Page 94

COMMERCIAL CAR JOURNAL, May, 1955

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THE ULTIMATE IN SAFETY...
AVAILABLE IN COMPLETE KITS**

Midland's air Hy-Power unit, which assures you ample braking capacity at all times, is available in kits for tractors, trucks, and buses through Midland's nation-wide distributor organization.

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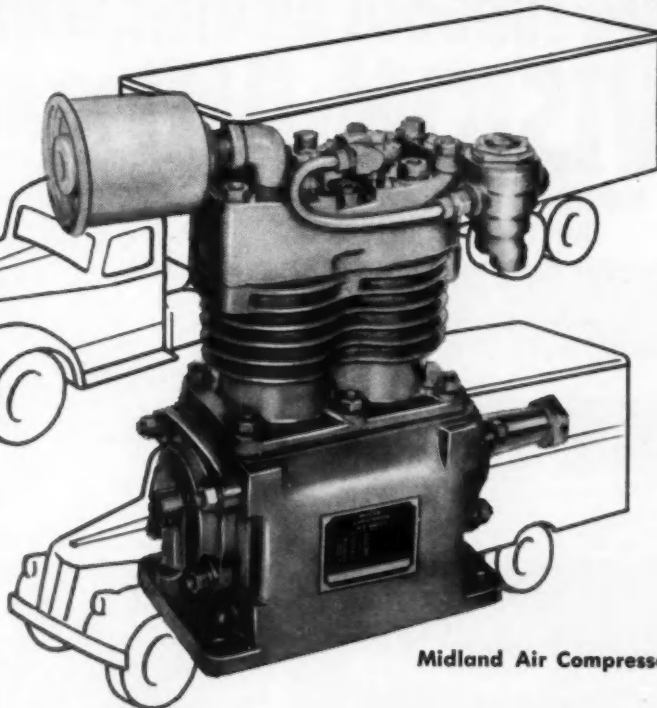
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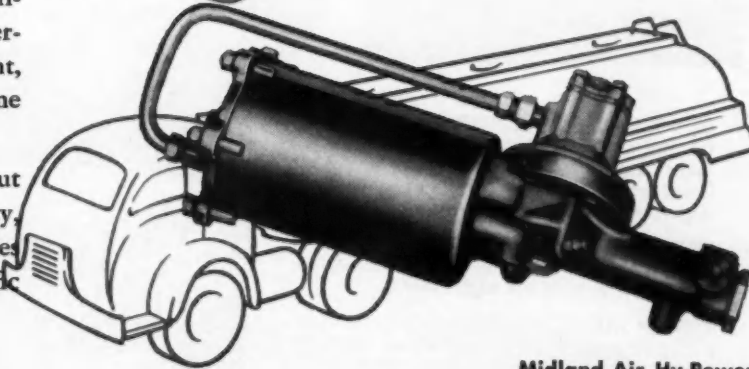
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Midland Air Compressor



Midland Air Hy-Power



Those Who Know
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Sleeve Corrosion—Causes and Cures

Continued from Page 79

ing oil with consequent engine failure.

Control of this condition is more difficult than control of the pitting in the middle of the sleeve. The cause is generally attributed to the dead water space around the sealing ring groove area as

compared to the live oxygenated water in the area immediately above the sealing rings.

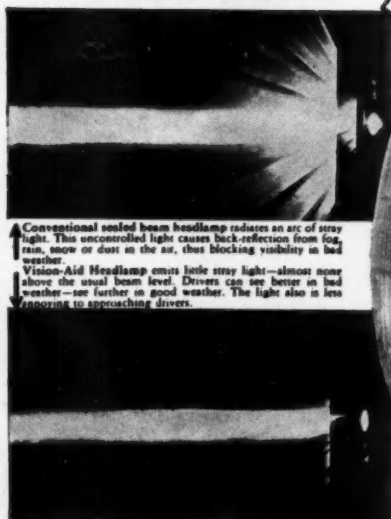
The difference in the water creates a varying electrical pressure which in turn produces a galvanic or electrolytic action that attacks both sleeve and block. As metal

salts lodge in the dead water space, corrosion action is accelerated proportionately. The difficulty of introducing chemical control in the dead water area makes chemical control of this type of corrosion less than 100 per cent effective.

Additional relief is experienced when chemical control is supplemented by covering the lower ends of the sleeves with a Thiokol (synthetic rubber) based sealing compound from the bottom of the sleeves to a point well above the sealing ring lands. The same coating should be applied to the portions of the engine block that mate with the lower ends of the sleeves. Such coatings are not permanent, however, and need replacement whenever the engine is torn down.

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Tung-Sol makes All-Glass Sealed Beam Lamps, Signal Flashers, Picture Tubes, Radio, TV and Special Purpose Electron Tubes, and Semiconductor Products.

Electrolytic Cavitation No. 2

Yet another type of sleeve corrosion is to be found close to the sleeve top flange, usually in close proximity to where iron and copper are joined in contact with the coolant. This has been established as an electrolytic action that can be controlled through use of previously mentioned chemicals.

Head gasket failure, experienced in some degree by most fleets, can easily be considered as a major cause of sleeve termites. When head gaskets allow highly corrosive exhaust gases containing sulphurous acid to leak into the coolant, it is only a matter of time until the coolant contains a sufficient concentration of sulphuric acid to corrode most of the metals in the engine. So far there is no control for this condition beyond maintaining head gaskets in seal-tight shape.

Water Problems

Water taken from local water supplies usually has two harmful qualities, as far as cooling system usage is concerned. It may be on the acid or alkaline side, or have other characteristics making it "aggressive" in its attack on metals. Second, it almost always has a calcium content and other mineral solids which form sludge and scale deposits as they are precipitated from the water. In order

(TURN TO PAGE 156, PLEASE)

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more recaps, resulting in far lower final costs! That's what
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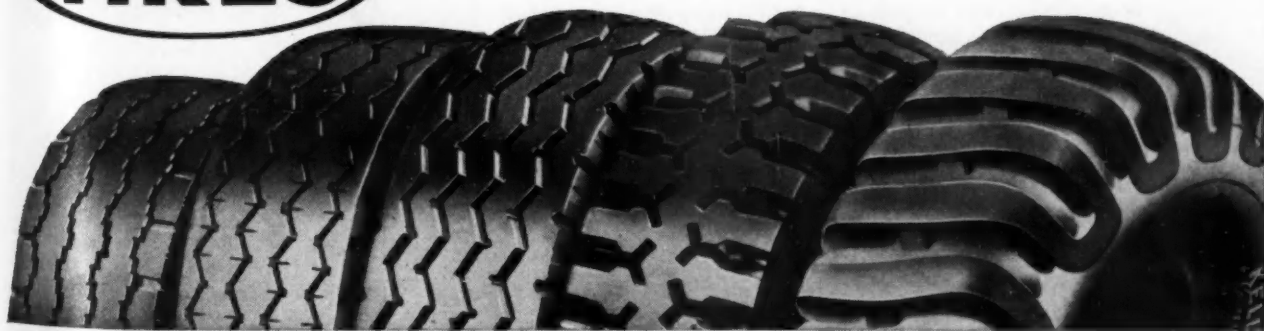
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The reports on the opposite page are just two of the many we've received—but they'll give you an idea of what men in the business think about Kelly Tires. If you're not getting the kind of service from your tires that these men are, there's one sure way to get it: *Switch to Kelly Nylons!* Let your Kelly dealer help you set up a Kelly Nylon Cord Truck Tire program for yourself. Then let your own cost and performance records prove to you: Kelly Nylons are the trucker's best buy! The Kelly-Springfield Tire Company, Cumberland, Maryland.



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Special Service

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Sleeve Corrosion

Continued from Page 152

that water may be made least harmful to cooling systems, it should have as much of the calcium or other scale forming salts removed prior to use as may be practical and the "aggressive" qualities should be "passivated" through use of chemical agents.

The first step of water treatment is necessarily to determine what is in the local water that may prove harmful and what treatment is necessary for conditioning. In this, local water companies and water softening equipment companies can be quite helpful, though final answers are usually more accurate and comprehensive when supplied by testing laboratories and reputable chemical firms.

pH Quality Control

In quite a few instances, it will be found that Zeolite water treatment will remove a good share of the hardness from the water. This process has no effect on the pH quality of the water. In other cases, a chemical agent will provide means of pH adjustment and scale control.

As far as is now known, there is no universal chemical agent that can be used effectively in all water conditions. With some waters, a sequestering agent will assist in keeping calcium contents in suspension in the coolant and will help prevent precipitation. In other waters, the same chemical agent may cause rapid precipitation of calcium in the form of excessive sludge and scale deposits. By the same token, differing chemical agents are needed to adjust the pH quality of the water when it is on the alkaline or acid side.

The foregoing should illustrate the desirability of obtaining competent advice regarding local water treatment before starting a cooling system maintenance program. In addition, most fleets will benefit by establishing a water storage strictly for cooling system usage.

Using a tank has two advantages. First, a large quantity of water can be treated at one time, eliminating the time necessary for many small treatments. Second, it minimizes the temptation of the mechanic to pour tap water in a cooling system without treatment when he may be in a hurry or forgetful. Since the success or failure of any cooling system program can be greatly influenced by the water being used, the foregoing is worthy of both time and study.

Water Control

Regardless of the treatments and chemicals being used, it is well to remember that chemically treated water will not retain its protective qualities indefinitely over a period of time. The pH quality is subject to change with water usage and both chromates and nitrates are used up during engine operation. Also, the addition of untreated make-up water

(TURN TO PAGE 160, PLEASE)

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A Hose Clamp So Easy to Attach and Detach!



• Now AERO-SEAL, the finest hose clamps, have been improved with a new exclusive patented feature that permits faster installation and removal.

To attach, just push the housing to desired position on the band, snugly around hose, and threads of the worm screw will drop in the slots. Now tighten the worm screw to fasten securely. To remove, loosen

the worm screw; at the same time lift screwdriver head and clamp will open.

But like all AERO-SEALS, it won't budge till you want it to. Never snaps open!

Stick with the finest—at no extra cost! Copy-cats can't be leaders. It's TURNOVER, not discount, that makes profits. Ask your jobber about the new AERO-SEAL JET!

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COLUMBUS CHICAGO

IVE 43% LOWER COST PER MILE

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"OVER 200,000 MILES OF TIRE SERVICE—100,000 miles on original tread, plus 3 recaps, averaging 40,000 miles each—that's what we expect to get from our nylon cord tires," reports William J. Gallagher, (right) maintenance supervisor of Columbus and Chicago Motor Freight, Inc., Columbus, Ohio.

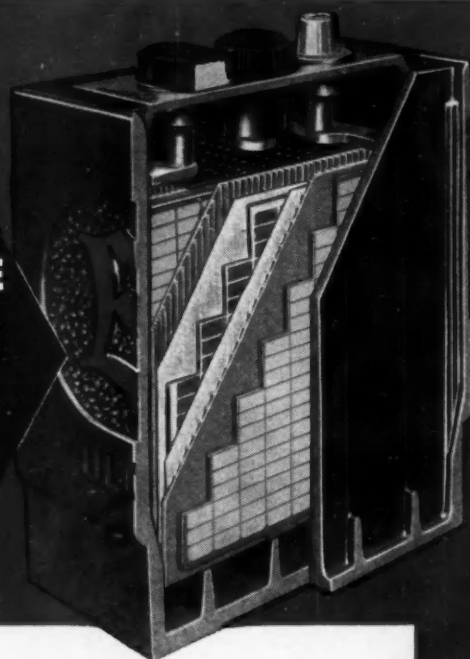
"Our freight-hauling operations in Ohio, Indiana and Illinois have proved that nylons cut costs. Since we started with our first nylons five years ago, they've reduced our road delays, given us more original mileage, more recaps—cut costs per mile 43%. We plan to put nylon cords on all our equipment as soon as possible."



New Style Pony Express

New Post Office bulk-mail units built by Great Dane are all single-axle, lightweight trailers, 32 and 28 ft in length. Each of the 250 units has a curb-side door, as well as the full length rear doors. Special locking hardware is provided on each door. Tongue and groove hardwood flooring and plywood lining make up the interiors.

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the new Catalog 40-3,
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Sleeve Corrosion

Continued from Page 156

during road stops can cancel the effectiveness of all earlier treatments.

Since sleeve corrosion attacks can start in a very few hours of operation with an untreated water, or a water that has lost its controlling qualities, any program must necessarily provide for regular and periodic coolant testing, and drivers must be trained to either not add make up water outside of terminal points, or to report such action if it has been necessary in order that coolants may be drained and replaced at the earliest possible moment.

Admittedly this part of a control program may be difficult for many fleets. However, the average fleet can probably well afford to install a water container on vehicles to supply make-up water as needed. And chemical companies are now supplying kits which make coolant testing easy and fast. Most testing is done by comparing colors of samples of coolant after adding a drop or two of provided chemical to the sample. One company is now providing a pack of blotters which provides a color comparison as soon as drop of coolant is placed on them.

All in all, the difficulties of cooling system control are no greater than those encountered in other phases of engine maintenance. The primary obstacles to the establishment of an efficient system seem to be (1) lack of recognition of the cost of neglect and (2) lack of (TURN TO PAGE 162, PLEASE)

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Page 156

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May, 1955



TOPS IN TEAM WORK—ALL THREE

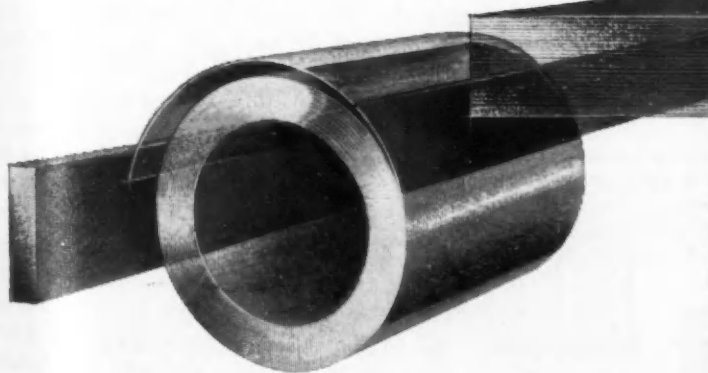
each does a special job

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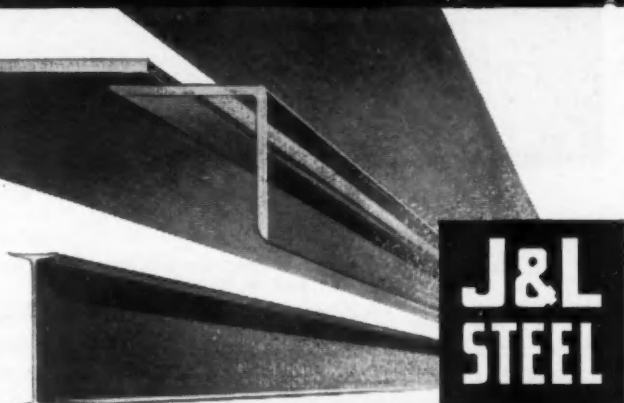
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Sleeve Corrosion

Continued from Page 160

a determination to take steps necessary to obtain relief.

Cooling System Filters

Several makes of cooling system filters are now being offered to the fleet industry that seem to offer an effective means of combatting most cooling system troubles with

a minimum of the attention necessary for the establishment of other systems. Some types of filters contain chemicals that act as buffering agents and water conditioners as well as the chemicals that supply the self-renewing surface to metal surfaces. They are apparently able to avoid the need for a variety of chemical formulas through the use of replaceable filter packs that extract calcium from coolants before they can be

precipitated in sludge and scale deposits.

In view of what has been learned regarding causes of termites, it is hard to expect any filter to be 100 per cent effective on all cooling systems under all conditions. But there is little question, based on reports of users, that the better filters are profitable to all fleet owners when they are properly installed and serviced. Just as plain chemicals need to be renewed periodically, so do filter packs need to be changed regularly to provide the added chemicals necessary for effective cooling system control. Since these filters are claimed to work equally well with both anti-freeze and straight water coolants, they appear to be well worth investigating before deciding on the program to be established.

For Example . . .

One of the more interesting reports of cooling system control has come from a fleet operator located in the Rocky Mountain States. This operator reports that before cooling system controls were established, it was not unusual to have a wet sleeve perforate in as little as 90 days. On checking water conditions over the system, it was found that all usual sources of water supplies were at about the same alkaline level.

Through consultation with chemists, it was decided to treat all cooling system water with both Calgon and sodium chromates (5 per cent by weight Calgon and 95 per cent sodium chromate). Relative strength of the solution is maintained by adding to the mixture to keep the coolant a bright yellow. This fleet reports over 200,000 miles between overhauls with almost a complete absence of rust, scale, and termites. Since the method has produced successful and profitable results in a fleet consisting of more than 200 engines of varying makes and models, there is proof that the average fleet can find relief from most termite trouble through an intelligent and consistent cooling system maintenance program.

END

Please Resume Reading Page 80

1 man + Bonney X-4 = 4 men



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Labor Saving!

It's the new BONNEY "X-4"—the amazing, muscle-saving 4-to-1 Geared-Head Wrench! Now, 1 man can do the job of 4 in all heavy assembly and disassembly work! In tightening or loosening threaded parts, there is no dangerous snap or jarring action. The Bonney X-4 makes tough jobs easy!

The new BONNEY "X-4" is designed as an *intermediate unit* for use with ratchets, torque wrenches, sockets, and attachments. Rugged, lightweight, portable—the unit is easily used in shop or field. A mechanic can do his own work with less effort, greater safety, with no chance of damaging equipment.

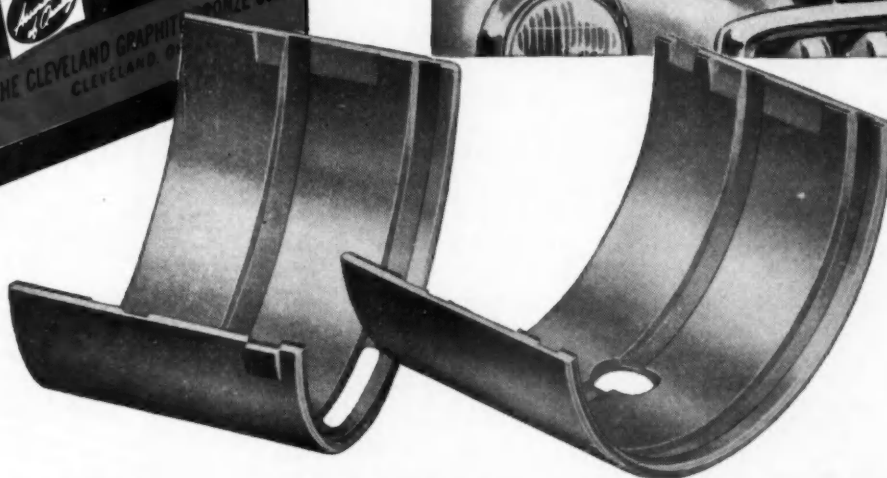
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A set of Monmouth* Clevite* 77 bearings will cut your down-time

● It's the down-time that gets you!

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One thing that plenty of operators do is to standardize on Monmouth Clevite 77 high-duty bearings. These bearings are identical with those originally installed in leading makes of heavy-duty engines and are giving better than 250,000 miles of service with little sign of wear on either shafts or bearings.

Because these bearings are identical with the original, they fit better and are easier to install.

Because they last longer, they not only cut down-time but they also save on operating costs. And they can withstand the abuse of long, sustained runs at higher speeds and with bigger loads.

Next time you tear down an engine, try a set of Clevite 77 bearings. You can get them from your nearby N.A.P.A. jobber.

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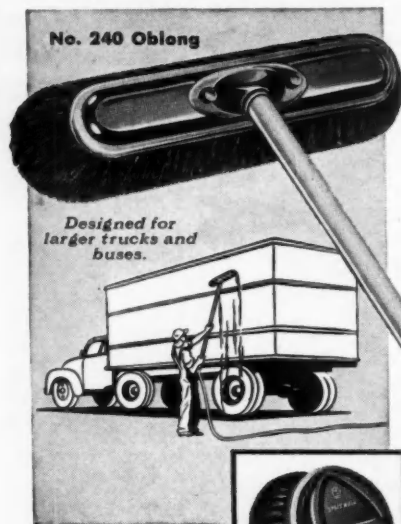
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Not even three ordinary fountain brushes can match the long lasting performance that results from the superior construction and design of Speed Wash. Soft, resilient bristles (50% Nylon, 50% Select Horsehair) can't mat or tangle. Tufts are molded into block, can not come out or come loose. Steel back is waterproof and surrounded by a mar-proof bumper. Handle is zinc plated inside and out. Features like these make Speed Wash the quality brush of the trucking industry, preferred by thousands of the nation's biggest fleet operators. You'll like Speed Wash, too. Order yours today.

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Utility Operators

Continued from Page 87

lubricants, Thomas A. McConnell of Detroit Edison Co., pointed out that not too long ago his company was using five different grades of oils, two gear lubricants, and a "host" of specialized greases. Now his fleet of more than 800 vehicles of all types uses one grade of engine oil (an SAE 20, Military Type), one grade of gear lube (EP90-140) and one grade of EP universal-type chassis lubricant which is used for water pumps, steering gears, and all other chassis fittings.

The only exception to this rule is where leaks of permanent type anti-freeze have caused severe sludging problems. Here it has been found that the use of a Supplemental 1 oil has virtually eliminated the problem. The entire fleet changes oil every 2000 miles, changes filters at from 4000 to 5000 miles, lubricates once a month, and uses no outside additives in either fuel or oil. McConnell cited no monetary saving in the actual cost of the new lubricating program, but stated that it had greatly simplified the storage problem and assured the right lubricant at the right place for all types of equipment.

Filters Need Heat

On the subject of oil filters, C. B. Chase of Fram Corp., cited the differences between paper and cotton filter types, pointed out that the lower resistance of the paper type elements made them essential for use in the full flow type of filter. He cited many tests showing that filters should be changed at least every 5000 miles, that filters do do an adequate job.

On this point, he raised considerable discussion from the audience as to whether or not sufficient oil temperature could be maintained in stop-and-go driving to do an adequate filtering job. He pointed out that the full flow filters incorporated in most modern engines, because they have a high flow of oil

(TURN TO PAGE 166, PLEASE)

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STRATOFLEX
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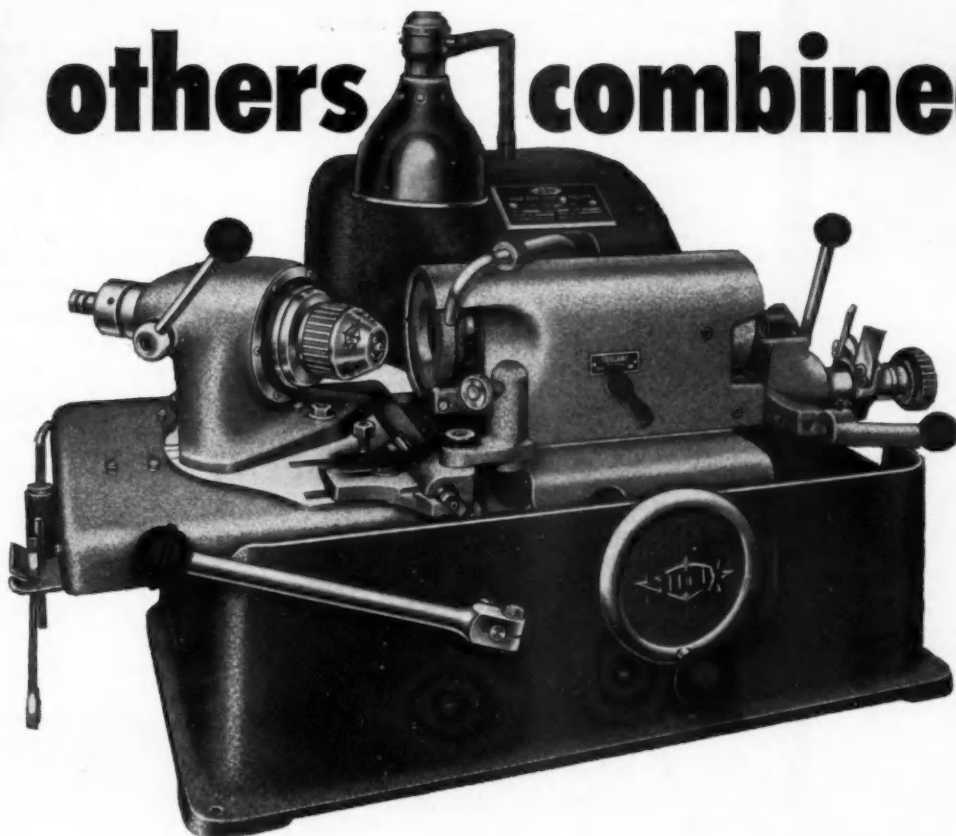
Built to give long service where conditions are especially rough on hose lines. Reinforced with high tensile strength wire braid with outer cover of tough synthetic rubber. In bulk Hose or Hose Assemblies with Stratoflex "over the cover" detachable, re-usable fittings. Write for your FREE catalog or order through your dealer.

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P. O. Box 10398
General Offices—P. O. Box 10398
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New York, Toronto, Tulsa

More SIoux valve grinding machines are in use than all others combined!



The same basic principles are employed in Sioux machines as in all fine production grinding machines; belts to absorb vibration, easy to clean chucks, accurate to within .001; inverted center floating aligner accurately holds valve in same position that it will operate in engine. The base is cast iron for rigidity and to provide weight for a precision grinder of this type. Way bars are precision made, hardened, and ground to close accurate limits.

Wet grinding reduces wheel dressing,

eliminates heat and distortion, produces the finest finish and factory precision. Wet grinding is an integral part of the machine. There is the finest vibration free motor drive.

Convincing testimony to this machine's superior performance may be seen in the fact that today there are more of them in use than all others combined. You can buy your Sioux Valve Face Grinding Machine with confidence. See your Sioux Distributor.



USE SIoux ALL THE WAY THROUGH

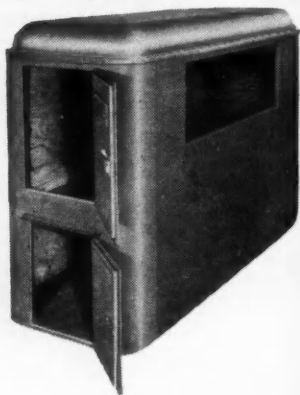
STANDARD THE WORLD OVER...

ALBERTSON and CO., INC.

SIoux CITY, IOWA, U.S.A.

ELECTRIC IMPACT WRENCHES • GRINDERS
FLEXIBLE SHAFTS • POLISHERS • SANDERS
HAND SAWS • DRILLS • ABRASIVE DISKS

THE SLEEPER CAB Preferred By DRIVERS & OWNERS



Your payloads move
faster and safer
when your drivers are
refreshed. Non-draft,
roomy TimpTE Sleeper
Cabs always provide
sound, restful sleep
for drivers...
more profit for you!

Outstanding Features

- One-piece welded top insulated
- Extra roominess
- No-draft ventilators
- Two doors each side
- Internal safety locks
- Readily adapted to any truck chassis



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40th & York Streets
Denver 5, Colorado

Please send me your literature on
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City _____ State _____

Utility Operators

Continued from Page 164

and are located as an integral part of the engine, do not permit high heat loss of the oil. With the external bypass filter, it is essential that everything possible be done to raise oil temperatures to assure maximum efficiency of the filters.

Leasing—Pro and Con

A. E. Dible of Equitable Gas Co. in Pittsburgh, started off a very interesting discussion of leasing possibilities, cited the old maxims that 12,000 miles was considered the minimum at which leasing is practical, and 40,000 the maximum mileage at which owning the equipment is financially sound. Since most utility operations do not meet the minimum mileage, a recent survey of 57 companies indicated that few were considering leasing seriously except for high mileage standard passenger cars.

He pointed out that the average lease agreement amounted to about \$85 per month, that special equip-

ment such as two-way radio made frequent trade-ins costly whether leased or owned, and that companies should not overlook the fact that most dealers were also customers, and that leasing eliminated the possible advantage of reciprocal agreements.

The bombshell of the session came, however, when R. E. Hemel of Cleveland Electric Illuminating Co., stated that they had worked out what he called an Equipment Trust Plan, whereby they were leasing passenger cars at a cost of only \$40 to \$49 a month. This figure includes depreciation, interest, and service charges but does not include storage, insurance, licensing, or any maintenance, all of which are sometimes included.

Under this arrangement, his company is now leasing 100 passenger cars and expects to have 250 by 1956. Citing the advantages of this arrangement, Hemel pointed out that they purchased a new car every year, that company employees took pride in having the new equipment, that there was

(TURN TO PAGE 170, PLEASE)

HUNTER CARGO COOLER

CONTROLLED DRY ICE REFRIGERATION SYSTEMS

LIGHT-WEIGHT, LOW-COST, DEPENDABLE REFRIGERATION

- Bigger payloads — weighs only 375 lbs. — compact, 19 in. x 48 in. x 75 in.
- Low cost — less initial investment — low operating costs.
- Minimum maintenance — greatly reduces upkeep and repair costs.
- Quick turn-arounds — no downtime for servicing — quickly re-iced.
- Makes total road failure of refrigeration an impossibility.
- Complete thermostatic control — temperatures from 0° to 60°.
- 3 Models — 600 lbs. and 1150 lbs. dry ice capacity — also combination heater-refrigeration unit.



Write for descriptive literature, specifications, prices.

HUNTER MANUFACTURING CO.
1550 E. 17th ST., CLEVELAND 14, OHIO

USS COR-TEN STEEL

capacity in *Metroette bodies!*

In the design of this new body, built by The Metropolitan Body Company, Bridgeport, Conn., for milk delivery service, every consideration was given to provide maximum load space and durability with least amount of steel. To accomplish this, a box-type construction, which made excellent use of the high-strength, weight-saving qualities of USS Cor-TEN steel, was adopted. USS Cor-TEN High Strength Steel is used in the unit to give necessary strength to vital parts—see illustrations—yet eliminate unnecessary deadweight.

USS Cor-TEN Steel has many properties which make its application valuable in the trucking field.

Because USS Cor-TEN Steel has a yield point $1\frac{1}{2}$ times that of regular carbon steel, has 4 to 6 times the resistance to atmospheric corrosion, has 50% higher fatigue strength and offers superior resistance to abrasion and impact, it is the first choice of many body fabricators to give their equipment greater strength or more capacity with lighter weight. The slight additional cost of Cor-TEN Steel construction can be more than offset by greater durability and stamina which pay off in reduced maintenance and lower repair bills.

For more information contact the nearest District Sales Office of United States Steel.

UNITED STATES STEEL CORPORATION, PITTSBURGH • AMERICAN STEEL & WIRE DIVISION, CLEVELAND
COLUMBIA-GENEVA STEEL DIVISION, SAN FRANCISCO • NATIONAL TUBE DIVISION, PITTSBURGH
TENNESSEE COAL & IRON DIVISION, FAIRFIELD, ALA.
UNITED STATES STEEL SUPPLY DIVISION, WAREHOUSE DISTRIBUTORS
UNITED STATES STEEL EXPORT COMPANY, NEW YORK

NOW AVAILABLE

Our new "Design Manual for High Strength Steels" is ready for distribution. This excellent book contains comprehensive and practical information that you will find extremely useful in designing your product for greater economy and efficiency by the sound use of high strength steels.

For your free copy, write, on your company letterhead giving your title, to United States Steel Corporation, Room 4706, 525 William Penn Place, Pittsburgh 30, Pa.



THE FINISHED METROETTE BODY is strong, sturdy, yet stripped of excess weight. This saving in deadweight effected by the use of USS COR-TEN Steel means bigger payloads, greater profits, realized from each trip. Higher resistance to destructive forces means longer life and less maintenance.

SEE The United States Steel Hour. It's a full-hour TV program presented every other week by United States Steel. Consult your local newspaper for time and station.

USS COR-TEN High Strength STEEL

UNITED STATES STEEL

Utility Operators

Continued from Page 166

much less maintenance, much less parts inventory, and that tires and even battery costs were practically eliminated. Discussion following his talk was heated, and many operators went away determined to further investigate the possibilities of this type of leasing agreement.

Automatic Transmissions

J. Howard Cameron of Michigan Consolidated Gas Co., Detroit, presented the case for automatic transmissions. On the favorable side were these advantages:

1. Less driver training.
2. Better performance in snow.
3. Less wear on clutches, drive lines, and even tires.
4. Less effected by driver abuse.
5. The more stops—the greater the benefits.

A "HE-MAN" IS REPORTING FOR WORK!



Since the days when the first Autocar vied with "Dobbin" for the task of moving America's vast production, no Autocar has ever sought a "soft" job—has ever asked a favor! Like its predecessors, this new, modern giant of the highway is built to handle "He-Man" jobs—speedily, safely, dependably. And, the builders of these units think, too, of the comfort of the driver and the safety of the load! That's why, *since 1939*, so many Gabriel Heavy Duty Shock Absorbers have done their share of work on Autocar power units.

You too, can profit by installing Gabriel Heavy Duty Shock Absorbers. Our trained engineers will be glad to call upon you. Write today.

GABRIEL HEAVY DUTY
SHOCK ABSORBERS

"The Greatest Name in Ride Control"

THE GABRIEL CO., CLEVELAND 15, OHIO

On the other side of the fence is higher cost, somewhat less torque, and the serious problem where power take-off arrangements are needed. There appeared to be little difference in fuel costs.

Finally, James H. Frier, vice-president of Bede Products Corp., in Cleveland, presented a film demonstration of his company's new airless paint spray equipment which features a 500 psi piston pump and a heater that keeps the paint at 140 deg temperature. With this equipment he claimed a paint cost savings of 40 per cent, much faster painting time, and total elimination of spray booths in many cities.

The latter, however, is subject to local fire regulations, and initial cost of the equipment is high unless compared with elaborate spray booth installations in the larger fleets.

END

Please Resume Reading Page 88

Consolidated Orders More 4-Wheel Drive Tractors, 24-ft Semi-Trailers

CONTINUING its current program of fleet modernization and expansion, Consolidated Freightways, Portland, Ore., has placed another order for approximately \$2,500,000 in new equipment. New vehicles purchased or on order under the 1954-55 program now total over \$7,500,000.

Included in the latest order, at a cost of \$1,300,000, will be 140 35-ft semi-trailers of the type used in the motor freight company's eastern and transcontinental operations.

Mainstay of CF's road fleet is the "doubles" combination — two 24-ft semi-trailers drawn by a short-wheel-base tractor, utilizing removable fifth-wheel dollies to convert from semi to full trailer. New orders have been placed for another 22 of these tractors equipped with four-wheel drive, 36 dollies and 84 trailers, at a cost of \$800,000.

More Use of Plastic

Fiber glass and plastics have been incorporated in the design of much of the new equipment—side and nose racks, rear doors, roof sections and corners, cab heater ducts and radiator shrouds.



*go places with KESTER
a must wherever SOLDER is used*

KESTER ACID-CORE SOLDER goes a long way toward making soldering jobs faster, easier, cleaner and more economical. That's why Kester's the automotive trade's overwhelmingly preferred solder choice from coast to coast . . . and for many

more years than can really be remembered!

DON'T FORGET the other Kester products—Radiator Flux-Core Solder . . . Plastic Rosin and "Resin-Five" Core Solder . . . Solid Wire and Bar Solder—also Soldering Salts.

KESTER SOLDER

COMPANY 4205 Wrightwood Avenue, Chicago 39, Illinois; Newark 5, N. J.; Brantford, Canada

COMMERCIAL CAR JOURNAL, May, 1955

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New Product Descriptions

Continued from Page 90

be adjusted to give a close fit around the tire circumference to obtain a tight bead fit while inflating the tubeless tire.

P23. Tire Truer

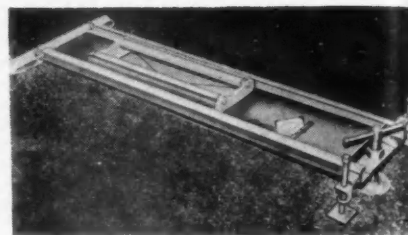
Bear Mfg. Co., Rock Island, Ill., has announced a new on-the-vehicle tire

truer is capable of handling passenger car and truck tires up to and including 9:00 x 20 without having to change any belts, pulleys or cutters. Speed and accuracy are attained through the exclusive tilting blade principle. It has a built-in vacuum unit which collects the dust in an easy to empty dust bag, thereby keeping

the area clean and neat. It is completely portable. Truer comes complete with a new, improved out-of-round indicator.

P24. Dual Tire Cradle

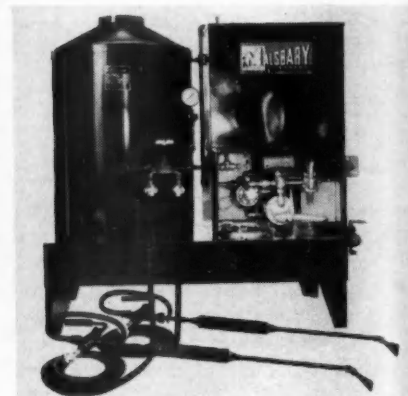
Phelps Mfg. Co., Van Nuys, Cal., has announced a new dual tire cradle, "Dual Roloff," for easy removal of



dual tires. A screw and swivel arrangement permits quick alignment of the base with the slope of the axle. Tilting of the base is prevented by finger actuated stabilizers on each side.

P25. Steam Cleaner

Malsbary Mfg. Co., Oakland, Cal., is producing a new model steam cleaner. Main features are contin-

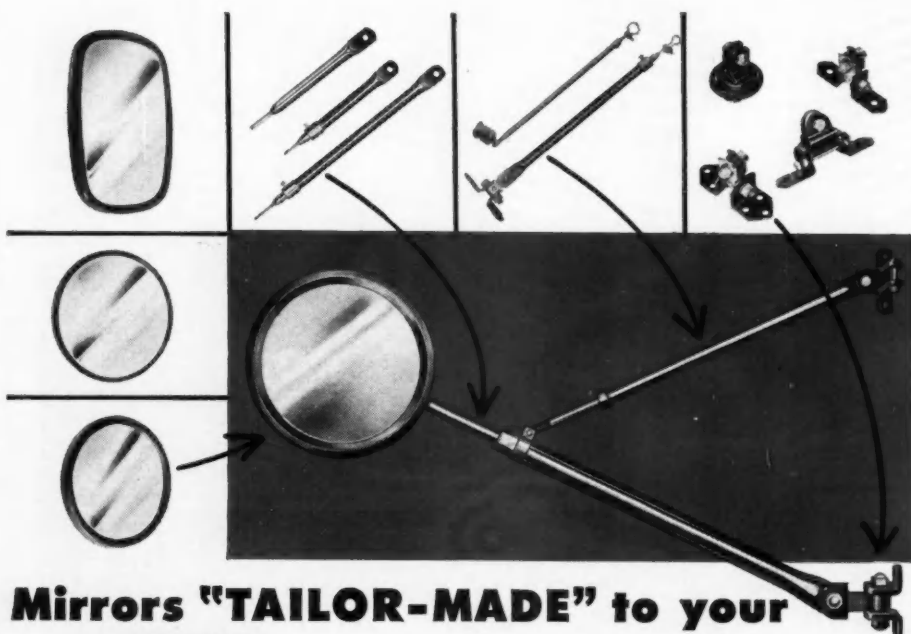


uous-duty cleaning, nozzle-control, and choice of one or two-gun operation. These features make it particularly desirable: where a continuous flow of hot solution is necessary, but pressure higher than 100 psi is not too important; where cleaning operations are some distance from the cleaner, thus making nozzle-control expedient; where two-man operation is necessary or desirable; where operation without downtime or investment in standby cleaners is a requirement; and where a unit is needed that is simple and safe to operate, yet able to stand abuse.

P26. Mobile Radio

The General Electric Co., Syracuse, N. Y., has announced a complete new line of FM mobile and base station two-way radio communication equip-

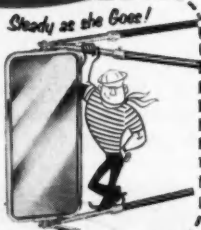
(TURN TO PAGE 177, PLEASE)



Mirrors "TAILOR-MADE" to your exact requirements!

CUSTOM
PURCHASE
PLAN*

See Grote's New
Clear-Vue, Too!
Big Rear View...
Steady Image...
Easy
Installation!



HERE'S HOW IT WORKS!

From Grote's complete line of mirror heads, arms, braces and brackets, you need order only those you want! Combine these parts to produce the "tailor-made" mirror assembly that fits your fleet requirements best. No replacement problems, either! You can replace any separate part, stock only parts needed. Avoid costly delays, mirror misfits and cripples, part-snatching from other complete mirror assemblies. Take advantage of Grote's new "Custom Purchase Plan"! You'll save time, cut costs, and be assured of mirror assemblies that fit your needs exactly.



Lamps • Directional Signals • Reflectors • Flares • Mirrors

Look into the complete Grote line of Truck Mirrors and Grote's new CPP* program. Contact your jobber today, or write for catalog pages and prices!

THE GROTE MANUFACTURING CO., INC., Bellevue, Ky. • Opposite Cincinnati

New Pro

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New Products

Continued from Page 172

ment for both 25-54 megacycle and 144-174 megacycle land-mobile radio services. Featuring the use of plug-in chassis, the "Progress Line" was designed around twelve basic "building blocks" of standardized physical dimensions. Flexibility has been provided by designing each of the chassis (transmitters, receivers and power supplies) so that it is completely interchangeable with other units of its type mounted in either a base station or mobile housing. All of the receivers will operate from either a six or 12 volt DC source or from a 117 volt AC power supply without modification.

P27. Steam Cleaners

Kelite Products, Inc., Los Angeles, Cal., announces its new Model K line of "Kelite" steam cleaners. These

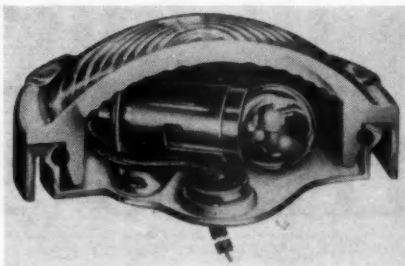


compact, cleancut steam cleaners (gas or oil fired) feature capacities to 300 gal per hr, with "Super Duty" models to 3000 gal per hr. An exclusive device automatically maintains the strength of the cleaning solution at the desired pH.

P28. Clearance Lamp

Betts Machine Co., Warren, Pa., is producing a new clearance lamp, the "Warren Snap Seal S-100." It is designed for use on trucks, trailers, vans and other commercial vehicles not requiring the extra safety of vapor-proof construction with threaded connections. The new unit provides better and longer-lasting lighting even under toughest service conditions. It meets or exceeds SAE

recommended procedure, ICC and state requirements. It is guaranteed for 10 years. "Snap Seal" arrangement holds its rugged lucite lens.



P29. Cargo Rope Nets

The Frisco Corp., San Francisco, Cal., has announced a "Safeload" manila rope nets for load tie-down, especially on flatbed trucks. The maker says considerable man hours will be saved by the simple application of a net, instead of single ropes. On rainy days, tarpaulins can be held in place, easier and better. Added strength and flexibility is given by the use of continuous length of rope.

END

Please Resume Reading Page 92

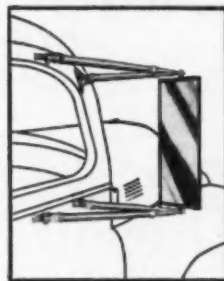
Better Hindsight!

DIETZ

NO. 78 WESTERN STYLE TRUCK MIRROR



- Holds Position Despite Vibration or Jarring.
- Fits all Trucks—New or Old, Either Side.
- Four Heavy-Duty Extension Arms adjustable from 16" to 27".
- Big 6" x 16" Hammer-tone Grey finish Mirror Head.
- Easily Replaceable Clear Plate-Glass Mirror in Rubber Cushion.



NOW AVAILABLE WITH REPLACEABLE HEADS...
DIETZ PASSENGER CAR MIRRORS



No. 500



No. 503



No. 502



No. 501

E. I. DIETZ COMPANY • SYRACUSE 1, N. Y.

In 1952...in 1953...and again in 1954

Cummins Diesels more new trucks makes of

CUMMINS ... 50.1%

Diesel "X" 23.7%

Diesel "Y" 23.4%

All others 2.8%

{ percentage breakdown of total
engines sold to diesel truck
buyers in 1954 from new truck
registration figures of R. L.
Polk Co.

into 1000th's of an inch



AT first glance, it is hard to spot the difference between a GMC *factory-engineered* replacement part and an ordinary, run-of-the-mill substitute.

But GMC's super-precision tolerances—often to 1000th's and even 10,000th's of an inch—make the difference when it comes to safer GMC truck-work.

For instance, they bar the too-tight fit that invites sluggish steering action—assure a crisp, instant response to every touch of the wheel. They prevent uneven wear that could lead to erratic braking rather than smooth, sure stops.

In fact, *every* GMC replacement item gives you an extra margin of safety. It's engineered in, at every step in manufacture—from raw metal ores right through to finished part. The industry's tightest system of quality control—with its many rigid inspections—sees to that.

Little wonder, then, that so many GMC operators use GMC parts exclusively. It's the finest protection they can give their drivers and equipment alike. And it's a real contribution to the safety of all the other highway users.

And remember—you can always get the GMC part you need—when you need it. Just contact your nearest GMC dealer — and play it safe!



GMC Truck & Coach—A General Motors Division

on of total
esel truck
new truck
of R. L.

May News Roundup

Continued from Page 106

Ind.; C & R Transfer Co., Sioux Falls, S. Dak.; Hershey Chocolate Corp., Hershey, Pa.; Consolidated Dairy Products, Inc., Long Island City, N. Y.; B. F. Walker, Inc., Ft. Worth, Texas.

NTTC Safety Winners

Dan Dugan Oil Transport Co., Sioux Falls, S. D., won the Tank Truck Trailmobile Trophy for 1954, for the fourth time in its six year history. Sponsored by National Tank Truck Carriers, ATA, and Trailmobile Inc., the trophy is awarded to the tank truck carrier who contributes the most to the safety of the general public on the highways, to safety education, and to good public relations for the tank truck industry through such acts as exceptional courtesy on the highways.

First place winners in the Sixth Annual NTTC Competitive Safety Contest were: Arrowhead Transport Co., St. Paul, Minn.; L. L. Majure, Meridian, Miss.; Kaw Transport Co., Kansas City, Mo.; Petroleum Carrier Corp., Jacksonville, Fla.; Ruan Transport Corp., Des Moines, Iowa.



Suburban Motor Freight, Inc., Columbus, Ohio—to 71 drivers for accident-free driving in 1954. The drivers shared in safety merit checks totaling \$9,000.

Tamiami Trail Tours, Inc., Tampa, Fla.—to 10 drivers. Their record totals 76 years without chargeable accident, an average of over 7½ years per driver.

Central Wisconsin Motor Transport Co., Wisconsin Rapids, Wis.—to 165 drivers. The drivers represent 83 per cent of the company's drivers, have a total record of 427 years.

Hughes Transportation, Inc., Charleston, S. C.—to two drivers. Their award included commissions as Kentucky Colonels in recognition of having driven 200,000 miles each without a chargeable accident.

Yule Truck Lines, Inc., Milwaukee, Wis.—to 27 drivers. As a result of their efforts, the fleet attained a 23 per cent reduction in preventable accidents in 1954.

Transport Motor Express, Inc., Fort Wayne, Ind.—to 220 drivers in a series of three safety dinners.

Express Freight Lines, Inc., Milwaukee, Wis.—to 80 drivers. Their record totals 240 years of accident-free driving.



Great Dane Trailers, Savannah, Ga., is shipping all new trailers with a 38 x 50-in. sign saying, "Here goes another brand new Great Dane Trailer—Tomorrow, it may carry a load for you!"

The White Motor Co., Cleveland, Ohio, has increased its Chicago area sales and service facilities by about 40 per cent with the opening of its new branch at Grand and Fullerton Aves.

Napco Industries, Inc., Minneapolis, Minn., is a new company formed by merger of Northwestern Auto Parts Co., Minneapolis; Federal Motor Truck Co., Detroit; Napco Detroit, Inc., Detroit; R. W. M. Investment Co., Detroit; and Berghoff Brewing Co., Ft. Wayne, Ind.

Olson Aluminum Body



The new 10,000 lb GVW Ford parcel delivery chassis, now available on special order, comes with single or dual rear wheels, 7200-lb rear axle and heavier frame. This new unit, a modification of the P-350 design, with the wheelbase extended to 130 in. and equipped with a 12-ft, 440-cu ft Olson aluminum alloy body by Grumman, is already in service in wholesale bakery deliveries.



... Wilbur V. Dunn, appointed sales manager, Automotive Safety Division, Hickok Mfg. Co., Rochester, N. Y.

... Ralph H. Weckler, distribution manager, sales section, AC Spark Plug Division, General Motors Corp., Flint, Mich.



... W. Glenn Jowers and W. W. Keller, Jr., promoted to manager, Pacific Coast and Southeastern districts respectively, Raybestos Division, Raybestos-Manhattan, Inc., Bridgeport, Conn.



... A. G. Baxter, sales manager, Hall-Scott Motors Co., Berkeley, Calif.

... D. J. Treadway, promoted to service manager, Hall-Scott Motors Co., Berkeley, Cal.

... Loyd E. Williams, manager-distribution, Cummins Engine Co., Columbus, Ind.



... Wayne E. Greene, transferred to truck district sales manager, Chicago, motor truck division, International Harvester Co., Chicago.



... Richard T. Karr, general sales manager, Equipment Sales Division, Puro-lator Products, Inc., Rahway, N. J.

... J. Edward Johnston, appointed highway Transportation Specialist, Chamber of Commerce of the United States, Washington, D. C.

(TURN TO PAGE 190, PLEASE)

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May, 1955



Shopping for refrigeration?

THERMO KING

Delivers

MORE COLD for your CASH

Your truck refrigeration dollar buys
more real—not theoretical—cooling
capacity when you buy THERMO KING.

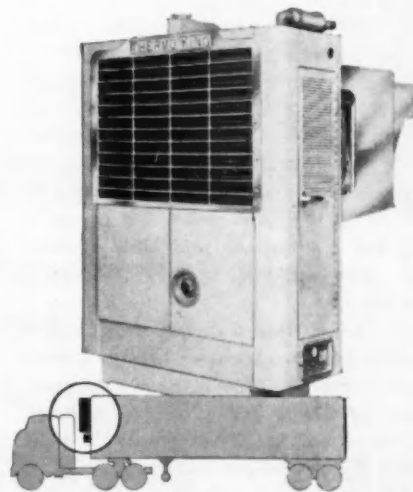
20 years of experience guarantee that

THERMO KING will give you the most
refrigeration for your money. Your best
buy is THERMO KING.

New THERMO KING
"pancake" model
fits the new cab-over-
engine tractor and
longer trailer trend
in trucking.

U.S. THERMO CONTROL CO.

44 South 12th Street
Minneapolis 3, Minnesota



Authorized service and genuine parts—from coast to coast!

May News Roundup

Continued from Page 188



Southeastern Motor Truck Lines, Inc., Nashville, Tenn., has placed an order for 90 GMC COE units equipped with twin Hydra-Matic transmissions. Cost will be over \$1 million.

Puerto Rico Transportation Authority, Puerto Rico, has placed a \$1 million order with Mack Trucks, Inc., for 50 diesel-powered, 45-passenger buses for June 30 delivery.

Garrett Freightlines, Inc., Pocatello, Idaho, has placed an \$850,000 equipment order. Included are 60 40-ft, high-volume trailers, 10 line haul tractors, 24 tractor and semi-trailer units for pickup service, 18 pickup trucks and 30 24-ft, double-bottom trailers.

Eldon Miller, Inc., Iowa City, Iowa, celebrates its 20th anniversary this year. The occasion was marked with an open house at its new general office building.



Arkansas—Arkansas Motor Carrier Act of 1955 has been enacted, bringing regulation in closer conformity with ICC requirements. It sets an annual fee for contract and common carriers of \$6 per truck or truck-tractor and \$10 per bus (S284).

California—New laws affecting passing include (1) requirement that vehicles passing on a grade outside business or residential area be operated a speed at least 10 mph faster than vehicle being passed and that passing be finished within $\frac{1}{4}$ mile, and (2) limiting vehicles of over 6000 lb GVW to use of lane immediately to left of right hand traffic lane for passing (H142 and H143).

Colorado—Requirements for commercial carriers' permits have been amended (S301). Public Utilities Commission is given a portion of truck tax yield for administrative expenses (H348). Ton-mile tax is amended to impose tax on property carriers with empty weight of 4500 lb and over at rate of 2 mills per cargo ton-mile plus .8 mills per ton-mile of vehicle weight (H271). Passenger buses and coaches are permitted a width of 102 in. (S198).

Idaho—Vehicle equipment provi-

sions have been amended to conform generally with 1954 revision of Uniform Vehicle Code (H195). Registration fees for trucks, trailers and buses have been amended. Weight-distance enacted becomes effective Jan. 1, 1956, applies to commercial vehicles over 16,000 lb and non-commercial vehicle over 24,000 lb at rates ranging from 3.25 to 37.1 mills per mile (H274). An accident report is required to indicate proof of financial responsibility and Commissioner is required to determine amount of security required within 20 days following accident (H257). Buses are permitted a width of 102 in. when operated on highways 20 ft or more wide (S79). Carriers of sand, gravel and aggregates are subject to Motor Carrier Act (H103). A tax is levied on public utilities including motor carriers to defray cost of PUC regulation (H258). Commercial vehicles over 16,000 lb and non-commercial vehicles over 14,000 lb are required to obtain vehicle licenses from Law Enforcement Dept. (H314). Weight limits according to axle spacing table are amended with maximum possible weight of 76,800 lbs.

Kansas—Ton mile tax is repealed, effective Jan. 1, 1956. New gross weight fees for trucks and buses range from \$10 to \$825 for weights of 4000 lb or less up to 60,001 lb or more. Reduced fees are provided for locally operated vehicles. Procedure is set up for registration of interstate fleets and pro-rationing of taxes and fees thereon. Special Fuel Tax rate

(TURN TO PAGE 194, PLEASE)

How Many Accidents in an Accident?

A RECENT railroad crossing collision in Georgia not only ruined a big trailer outfit but derailed for good the train that met the truck. What makes this one different is that 15 different railroads owned freight cars that were wrecked at that intersection and they were all suing the truck. There were 16 lawsuits against the truck, and one against the railroad that owned the locomotive.

The truck line was not comfortable in this position because the insurance policy provided for a maximum payment of \$5000 for property damage in one accident. That wouldn't even pay for one freight car!

For a time it looked as though a railroad was going to own a truck line if they could win the lawsuit, but the trucker's lawyer hit upon the

scheme of claiming that there were really 15 different accidents as 15 different railroads were involved and different damage was done to the property of each.

His theory was that a highway accident happens to a person or maybe two, but if another vehicle gets into the accident it really is making a new accident, although it may happen at almost exactly the same time as the first accident. And if there is a train wreck it is a separate accident for each person in the wreck or each railroad that has a car in it.

A majority of the judges of the United States Circuit Court of Appeal were convinced that this is the correct way to look at an accident and decided that the truck-train collision was in fact 15 accidents, or maybe 16, and the insurance com-

pany's liability was \$45,000—the maximum of the policy rather than the \$5000 limit for one accident. The judge said that an accident is something "unusual and unexpected by the person to whom it happens." Therefore each person who owned property involved in a general accident such as a train wreck had a separate private accident with the truck.

This court decision will cause some difficulty to many insurance companies who have policies that provide different maximum coverage for one accident and several accidents. In the meantime, until the policies get rewritten that it is, whenever a vehicle is in an accident there is a possibility that it really was in several accidents, and that the insurance coverage could be so interpreted.